THE DSARC AND PPBS DECISION MAKING PROCESS WITHIN DOD

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THESIS

THE DSARC AND PPBS DECISION

MAKING PROCESS WITHIN DOD

by

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The process of acquiring major weapon systems is the largest, most complex and dollar consuming process in the Department of Defense. The cycle from concept to delivery may require five to ten years. Consequently, decision-making responsibility for these systems rests with the highest organization levels in the DOD. Within the parameters of complex constraints and pressures, two major processes occur simultaneously: (1) the Defense

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Systems Acquisition Review Council (DSARC)--the acquisition process and (2) the Planning, Programming and Budgeting System (PPBS)--the funding process. An understanding of the interrelationship between the DSARC and PPBS process is believed to be the key to the development of a framework for comprehending decisions concerning major weapon systems. The ideas presented in this thesis are intended to provide that understanding.

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The DSARC and PPBS Decision Making Process Within DOD

by

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ABSTRACT

The process of acquiring major weapon systems is the largest, most complex and dollar consuming process in the Department of Defense. The cycle from concept to delivery may require five to ten years. Consequently, decision-making responsibility for these systems rests with the highest organization levels in the DOD. Within the parameters of complex constraints and pressures, two major processes occur simultaneously: (1) the Defense Systems Acquisition Review Council (DSARC)--the acquisition process and (2) the Planning, Programming and Budgeting System (PPBS)--the funding process. An understanding of the interrelationship between the DSARC and PPBS process is believed to be the key to the development of a framework for comprehending decisions concerning major weapon systems. The ideas presented in this thesis are intended to provide that understanding.

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I. INTRODUCTION

A. OBJECTIVE

This thesis is concerned with the major weapon systems decision-making process within the Department of Defense (DOD). Since it appears that funds will continue to be constrained within the Department of Defense, it is imperative that any potential program manager within the DOD structure be well aware of both the budgeting and program decision-making processes and their specific current and potential "state-of-the-art" procedures.

It has become increasingly apparent that DOD has, in past years, initiated more programs than the current and anticipated Defense budget will support [38:68]. Due to the complexity of modern weapons and rising expenditures for personnel, our Defense systems are ever increasingly more expensive to procure, operate, and support. These rising costs combined with a relatively constant acquisition budget for major weapon systems have resulted in a "bow wave" of programs awaiting funding, adding up to approximately one third of the production budget. This funding problem has been further aggravated by the downward trend in defense buying power since the Vietnam War. Additionally, to make the available funds reach further, other programs have been stretched out to rates much below those which are cost effective. This in turn makes unit costs even higher and creates a "double bow wave."

B. RESEARCH QUESTIONS

It is therefore the contention of the researcher that this thesis should serve the primary purpose of establishing the significant interface points in the decision-making process between the Planning, Programming, and Budgeting System (PPBS) and Defense Systems Acquisition Review Council (DSARC) cycles in order to enable military program managers to successfully develop and procure weapon systems efficiently and economically. The basic research question to be answered is "What are the significant interface points in the decision-making process in the Defense Systems Acquisition Review Council and Planning, Programming, and Budgeting System (PPBS) cycles and how might they be improved?" Subsidiary questions that will also be answered are: (1) What are the DSARC and PPBS processes? (2) Where do these processes typically interact and when does this occur? and (3) What are the key or significant problems with these interfaces?

The following chapters are oriented to provide background information that will serve as both a learning experience for any potential program manager as well as the framework for development of the central objective of this endeavor: identifying the interfaces between the DSARC and PPVS decision-making cycles and where they may be improved. Because of certain limitations due to geographic location, much of the research was done by literature search and interviews.

C. SCOPE

Due to the broad scope of the topic, this research has been limited to the major interfaces that occur at the Office of Secretary of Defense (OSD) level. The impact on the military services and program managers is a topic that merits a separate paper.

D. ASSUMPTIONS

It is assumed that the reader has some knowledge of the acquisition process and the Department of Defense (DOD) organization. In order to provide more clarity to the DOD language, definitions are contained throughout the thesis and a consolidated listing of the definitions is contained in Appendices A and B for ready reference.

E. METHODOLOGY

As stated earlier the methodology of study for this thesis is primarily one of literature review. To add to and expand this, interviews with key top management DOD officials were conducted to get the opinions, ideas and criticisms of the implementors and decision-makers in the DSARC and PPBS cycles. Lists of the questions and topics addressed and the people interviewed are contained in Appendices D and C.

F. ORGANIZATION OF STUDY

This study is organized as follows: Chapter II provides the background information that will examine both the DSARC and PPBS processes as they evolved. Chapter III provides an overview of the DSARC process within the DOD with emphasis

on the timing of various events as well as the players involved in the attainment of the finished product.

Chapter IV examines the PPBS process within the DOD with an analysis based on both historical and current perspectives. The recent emergence of Zero Based Budgeting (ZBB) within the PPBS structure will be explored, particularly the evolution of the overall concept.

Chapter V will take the concepts presented earlier and will develop and identify the various areas of interface. It will also address those areas in which interfaces are necessary but are apparently lacking.

Chapter VI examines the problem areas identified in the previous chapter in detail. It develops arguments for and against proposed solutions.

Chapter VII will briefly summarize the entire thesis report and allow the researcher the opportunity to make some closing comments concerning some of the conclusions drawn and recommentations made during the course of this endeavor.

G. ACKNOWLEDGEMENTS

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3. Arthur Zdobysz, Assistant Branch Head, EW, AIR-5332, NAVAIRSYSCOM, Washington, D.C.

II. BACKGROUND

A. INTRODUCTION

The cost of National Defense has been one of the most controversial subjects over the past several years, and it appears it will continue to be debated for years to come. Public pressure has strengthened congressional and administration determination to hold the defense budget down due to the impact of inflation, energy, and rapidly increasing personnel costs. The area most affected by the decrease in real buying power is the acquisition of military hardware and weapon systems.

The need for better defense system management has demanded a more efficient process for selecting systems to be developed and produced. Defense systems normally evolve either as a result of continuing research and development efforts of the military service and defense contractors or through further engineering and development of systems already in being. These problems of reduced real buying power, outside DOD pressures, and requirements for better management directly influence the DSARC and PPBS cycles of the DOD.

B. DSARC

The Secretary of Defense has the statutory authority and responsibility to direct and control the weapon systems acquisition process. The Secretary can delegate much of his authority and must do so as a practical matter. In order to place current system acquisition policy in perspective, it

may be useful to review the background leading to the current policy.

The system acquisition history in the 1950's was dominated by several major developments, including the development of nuclear weaponry, the Korean War, and the missile and space race, which was perceived as a technology race against the Soviets. These developments created a sense of urgency which resulted in the procurement of major systems using a high degree of concurrency with compressed time schedules for development and production. As a result, cost growth, poor performance, and duplication of design and effort were prevalent among the services.

At the end of the 1950's it became obvious that better management practices would have to be developed if the ever-growing amounts of money demanded for major systems acquisition were to be spent efficiently. For example, over $1.5 billion was spent on the B-70 [35:63]. In this program, the delivery schedule lagged badly and costs escalated because it was subject to too many reorientations as to the need of the system. While the program produced substantial advances in technology which were incorporated into other programs, a substantial amount of funds were spent in coordinating subsystem development, integrating logistics and training considerations in its design and production capability development. The B-70 project was only one of a number of systems that ran into trouble. In their study, "The Weapons Acquisition Process: An Economic Analysis," Peck and Scherer

provided detailed information on a number of major weapon systems developed in the 1950's [35:70]. In general, the study showed that costs had more than tripled during the acquisition cycle and that schedules had slipped significantly even though technical goals had been met.

It was generally believed that these results were caused by: (1) excessive control of programs by technical personnel who "goldplated" the item to the detriment of cost and schedule, (2) premature initiation of production of both systems and subsystems before development could be completed, (3) lack of useful management control systems, and (4) excessive use of Cost Plus Fixed Fee (CPFF) contracts [35:85].

The Secretary of Defense, beginning in 1960, made significant policy changes in an effort to correct weaknesses in the system acquisition process. This effort resulted in several revisions to DOD directives. A coordinated framework was the "building block" established for policy formulation and implementation for DOD system acquisition. Policy formulation and decision making shifted from the services to the highest levels of DOD. The rationale given for the creation of a strong Research and Development (R and D) Executive in the Director of Defense Research and Engineering (DDR and E) (now known as Undersecretary of Defense for Research and Engineering) in the Defense Reorganization Act of 1958 was in large measure based on the need for rapid decision-making to reduce lead time. The practice of a high degree of concurrency in development and production became the accepted

norm. Though concurrency makes sense in programs dealing with national security, in most other programs it proved to be an over reaction resulting in unnecessary costs.

Since 1969, several studies have been conducted by the President and Department of Defense to specifically address the performance and efficiency of the Department. The major study was performed by the Defense Blue Ribbon Panel, appointed by the President and the Secretary of Defense in July 1969. This Panel acknowledged that the operation and management of the Department is complex and not adaptable to conventional management. It reported that "it operates in a highly volatile environment, subject to many pressures and conditions which are largely beyond the control and often beyond the influence of those primarily responsible for Defense management." [46:17] The shifts in national policies and priorities, with the accompanying shifts in the range of United States commitments, were identified as major factors causing the problems in management. Despite these factors, the Panel clearly indicated that there are numerous actions which could be taken by the Department of Defense to improve efficiency and public confidence.

The Defense Blue Ribbon Panel Report was submitted in July 1970, and implementation of the recommended actions has been very slow and limited. It appears that the recommendations for increased staffing in selected areas such as test and evaluation, received relatively prompt action, as they are expansions of the bureaucracy which creates billets. The

recommendations, however, for decreases in bureaucratic layering and paperwork to increase efficiency and reduce costs have been slow in forthcoming. The problems of implementation were addressed by Deputy Secretary of Defense William Clements, in March 1974, when speaking of the refinements of the acquisition procedures, he said:

> I want to place emphasis on the fact that we have come a long way since our present policies and methods of doing business were established. I participated in establishing these policies through the Blue Ribbon Panel work and its recommendations as adopted in 1970. It was and is a great plan, and I say that in all modesty, because there were many people contributing to it and it was well done. But we must do a far better job of implementation of that plan that we have got to bring about [4:3].

Although Secretary Clements emphasized that implementation was the key factor, what resulted were additional studies within the Army and Navy.

Although somewhat more detailed in selected areas, the recommendations by both Navy Marine Corps Acquisition Review Council (NMARC) and Army Material Acquisition Review Committee (AMARC) on the major organization, management, and acquisition procedural problems closely paralleled the recommendations of the Defense Blue Ribbon Panel [1:11].

In 1971 the principles and procedures of the Department of Defense Acquisition Directive, including such things as milestone checkpoints, experimental prototypes, fly-before-buy, greater emphasis on operational test and evaluation before production, all contributed to the reduction of concurrency and high risk. This process eventually led to a

formalized decision-making body which is known today as the Defense System Acquisition Review Council (DSARC).

Recent trends toward decentralized decision making within the Department of Defense increase the importance of thorough program review within the Services. For example, Office of the Chief of Naval Operations Instruction identifies the program review process as "... the principal means for monitoring acquisition programs..." and establishes levels of decision authority for program review and approval based on funding thresholds [15:4]. The advocacy role of the program manager is balanced at the major milestone decision points by the broader awareness of those in higher management positions.

Up until the 1970's the schedule has been the force behind the acquisition cycle. The danger now may well be the pendulum is again overswinging and that costly and unproductive delays are increasingly being imposed on programs through the milestone process. Whether the DSARC process has resulted in this, with its implementation, is difficult to ascertain. The OSD staff is almost uniformly of the opinion that the current DSARC process, although it can and should be improved, has been and will remain essential to the achievement of weapon systems management [57].

DOD officials interviewed point to the importance of adversary procedures in program management reviews which they feel never can be attained within the Services. The Services, on the other hand, strongly disagree and maintain that the level of detail and frequency of current activity in the

DSARC process is a major mangement problem, blurs program accountability and responsibilities, detracts from the program manager's attention to important problems and requirements within his program, and causes unnecessary delays, costs and instabilities in programs [50][58].

Deputy Secretary of Defense Packard originally intended that the DSARC would serve to complement the Decision Coordinating Paper (DCP) process [1:12]. In this procedure, the final revisions of DCPs were not to be prepared until after holding a DSARC review, which would permit coordinated evaluation and deliberation among senior managers to assure that advice given to the Secretary of Defense would be as complete and objective as possible prior to a decision to proceed to the next step in a system's acquisition cycle [1:14]. Hopefully, by assembling these principles, certain issues would be resolved prior to passing the DCP to the Deputy Secretary of Defense for decision rather than forcing him to take a stand when all his senior advisors were taking different positions from one another on issues other than the major ones.

While Mr. Packard was a firm advocate of participatory management, he reserved for OSD the decision-making responsibility regarding whether a particular program should be continued at various decision points in its life cycle, particularly since such continuance is directly related to DOD's long-term objectives and budget problems. The DSARC meetings were to be used to evaluate the managerial performance of the Services in implementing approved policies and

to make decisions on proceeding into the next phase in each major acquisition program. The three points in a system's acquisition cycle at which Mr. Packard felt that a DSARC should be convened are:

1. When initiation of a program is proposed.
2. When transition from the validation phase to full-scale development is proposed.
3. When transition from development into production for service deployment is proposed [1:17].

A significant change introduced by the Packard DCP/DSARC process was the increased emphasis placed on achieving technical performance as well as cost and schedule goals in one phase of the acquisition cycle before entering the next phase. This emphasis on performance was significantly different from the prior major emphasis on cost and schedule milestones.

In the early to mid 1970's, procedures were put together which had an unequivocal impact on the defense system acquisition. Prior to the actual issuance of DOD Directive 5000.1, two particularly significant memoranda were issued by DEPSECDEF Packard. These memoranda became the basis for much of the mechanism and policy used in this directive. The first was the 30 May 1969 Memorandum, Establishment of a Defense Systems Acquisition Review Council, which resulted from Mr. Packard's initial review of system acquisition management in the Department of Defense. The second memorandum, dated 28 May 1970, Policy Guidance on Major Weapon System Acquisition, was written after a year's study of the

acquisition process by Mr. Packard and his staff. This memorandum set the final tone for the issuance of the DOD Directive. New policy guidance in this memorandum concerned system acquisition management, conceptual development, full-scale development, production and contracts. In addition, the decentralization of management in systems acquisition was emphasized [1:4].

With two major building blocks in the acquisition process established, the DSARC and significant new acquisition policy, the formal document, DOD Directive 5000.1 was issued. This document restated the policy previously established and went into greater detail in delineating the responsibilities of OSD and the DOD components. Additionally, a more detailed description of program considerations was included. These considerations were: (1) a statement of the system need in operational terms and its repeated challenging, (2) consideration of cost parameters to include acquisition and life-cycle costs, (3) logistic support, (4) use of milestones, (5) assessment of technical uncertainty, (6) increased use of test and evaluation, (7) contract form consistent with program characteristics, (8) source selection considerations and (9) use of realistic management information-program control requirements.

The DSARC process itself will be discussed in detail in Chapter III.

C. PPBS

Any system used to manage the allocation of an organization's resources should be made up of a set of functions and procedures intended to help management decide on its objectives, and monitor the subsequent execution and realization of its objectives [41:1].

The "system" must be sufficiently flexible to permit adapting the specific functions and procedures that accomplish these tasks to the management style of the system decision makers [2:90].

The art of budgeting is dynamic in nature and has been subject to reform throughout the history of the United States. The basic products of the reform movement include: line item budgeting, performance budgeting, and Planning, Programming and Budgeting. These products represent the basic evolution of the present Planning, Programming, and Budgeting System (PPBS).

"Budget Reform," Charles Beard wrote during the first period of budget innovation in the early years of the Twentieth Century,"bears the imprint of the age in which it was oriented." [2:95] This observation has proven to be of a timeless quality since the products of budget reform have reflected the particular conception of the budget function as perceived at the specific time of its innovation.

Although every budget process includes aspects of control, management and planning, one function tends to predominate [43:4]. This predominance comes about due to the inherent

competitiveness of the functions; emphasis on one diminishes use of the others. During each period of budget reform the control-management-planning balance was changed to reflect the particular emphasis associated with "the needs of the time."

The basic product of the first period of budget reform was emphasis on line item budgeting as an attempt to satisfy the need for expenditure control. This period of reform included the years between the passage of the Budget and Accounting Act of 1921 and the Hoover Commission Report of 1949. This line item approach to budgeting derived from the bureaucratic condition common to modern government. These conditions evolved from the desire of government to prevent financial improprieties and for limiting agency spending to authorized levels. Due to this concern with respect to fiduciary responsibility, government budgeting inevitably "begins with indispensable efforts to prompt 'accountability' by preventing public funds from being stolen, used for unauthorized purposes, or spent at uncontrolled rates...". While the control function was well defined in this line item orientation, the management and planning aspects of the budget were not properly developed [23:117].

The second product of the budget reform movement, performance budgeting, was as unifunctional as the line item budgeting approach with a different functional emphasis. Performance budgeting emphasized the management side of budgeting with the control and planning aspects of budgeting

being decentralized or dispersed. Performance budgeting has as its principal thrust an attempt to improve work efficiency by means of activity classification and work/cost measurements.

It was demonstrated in the budget reform movement that both line item and performance budgeting were obviously much too unifunctional to be totally effective.

Prior to 1961, military planning and financial management was being conducted independently. The Joint Chiefs of Staff and planning agencies of the military departments conducted military planning while the Comptroller was responsible for financial management. This system led to piecemeal resource management with imbalances in the overall Department of Defense Plan.

The inherent problems associated with such a fragmented system of managing resources brought to light the need to establish a system to bridge the gap between planning and budgeting. In the early 1960's, the bridge was referred to as the programming system but by 1963, the Planning, Programming, and Budgeting System (PPBS) was operating for the Department of Defense.

The Planning, Programming and Budgeting System (PPBS) has a multi-purpose perspective. While PPB regards planning as the central budget function, it does not negate the need for control and management and informational structures oriented to these functions. PPB has therefore been found to be an efficient vehicle to enable policymakers to evaluate

the costs and benefits of alternative expenditure proposals. The PPBS that has evolved from the basic PPB concept is therefore the "state of the art" with respect to the optimum balance of the control-management-planning aspects of budgeting that confronted the Federal Government.

Changes in the way the Defense Department conducted its business continued during the years of Robert McNamara's service as Secretary of Defense. Many of these changes were initiated by Mr. Charles Hitch. It was in this period that the focus shifted to the decision-making area, to the selection of meaningful national defense objectives as the basis for management and to determinations of the resources needed to meet these objectives, with cost-effectiveness techniques used to evaluate and decide among alternative proposals [29:52].

This shift in focus led to development of the DOD programming systems which bridge the gap between planning and budgeting. Programming is the function by which proposed goals for the next five years, and resources required to achieve them, are decided upon yearly.

Although programming closed the gap between planning and budgeting, by making them into essentially one process, they remained separately oriented. Planning was based on missions, whereas budgeting was based on Congressional appropriation classifications. Furthermore, accounting on which both planning and budgeting depend for information, was based on organizational entities. These differences led to many problems.

Some of these problems included the following: (1) there was no means of tracing the results of decisions through the budgeting and implementing phases or of obtaining useful information to assist in future decisions, (2) budget classifications tended to lead to over-centralized management for a wide spectrum of individual items of expense, and (3) the general inability to collect meaningful data for cost-effectiveness studies of resource utilization often made it necessary to conduct costly ad-hoc studies to get information that should have been readily available from the regular management accounting systems.

When Dr. Anthony was appointed Assistant Secretary of Defense (Comptroller), he was asked by SECDEF McNamara to make major changes in programming, budgeting and accounting systems, as necessary to ensure consistency and comparability among them.

During 1965, President Lyndon Johnson directed all departments and agencies of the federal government to adopt a planning, programming and budgeting system. During the implementation phase of PPBS, Charles L. Schultze, then Director of the United States Bureau of the Budget, announced six goals of programming budgeting: [41:7-9]

1. Careful identification and examination of goals and objectives in each area of government activity.
2. Analysis of the output of a given program in terms of its objectives.
3. Measurement of total programming costs, not for just one year but for several years in the future.

4. Formulation of objectives and programs extending beyond the single year of the annual budget to long-term objectives.

5. Analysis alternatives to find the most efficient ways of reaching program objectives for the least cost.

6. Establishment of analytic procedures to serve as a systemic part of the budget review process.

As could be expected of any new system within the Federal Government, PPBS met with varying degrees of success with respect to its implementation. While some departments and agencies adjusted quite well to the new game inherent in PPBS, others failed to go beyond a "first step" posture with respect to PPBS implementation. The Department of Defense, however, proved to be fertile ground for the growth of this new approach to budgeting and PPBS has not only survived but in reality has actually thrived in the DOD environment.

In order to meet the goals established by both SECDEF McNamara and President Johnson, Dr. Anthony initiated the Resource Management System (RMS) and Project PRIME. The concepts behind RMS and Project PRIME were to have an operating budget instead of allotments to the different activities, purify appropriations, incorporate accurate accounting and establish uniform expense accounting structures.

The system of planning-programming-budgeting conceptually relates three facts: (1) a desired outcome (planning), (2) the structuring of methods for achieving the outcome (programming), and (3) the funds available to accomplish the end result (budgeting). The planning function is the first phase from which attempts are made to make government

operations more efficient and effective by improving the allocation of public resources between competing needs [29:19].

Recent developments pertinent to PPBS include the Congressional Budget and Impoundment Control Act (CBICA) of 1974 which had several changes that affected the Defense resource allocation process. For example, under the CBICA the Congress declared it essential to assure effective congressional control over the budget process. This includes control and the determination of the levels of revenues and expenditures.

Also in 1977, the Carter Administration required federal adoption of Zero-Based Budgeting (ZBB) procedures. Zero-Based Budgeting is an operating and budgeting process which requires each manager to justify his entire budget request in detail from scratch, and shifts the burden of proof to each manager to justify why he should spend any money at all. This approach requires that all activities be identified in "decision packages" which will be evaluated by systematic analysis, and ranked in order of importance [37:14]. Secretary Brown, with OMB agreement, said that DOD would "be able to call from our PPBS system the basic data that will be required to assure effective implementation of the ZBB system."

Several recent modifications to Defense PPBS introduced by Secretary Brown demonstrated that the Defense resource allocation evolves to meet the perceived needs of each period

and to accommodate different styles of leadership. While one objective was to shorten and simplify PPBS, the modifications are viewed by many participants as complicating an already busy annual cycle by interposing a third major benchmark for decision, with its accompanying preparation and review process [56].

III. DEFENSE SYSTEMS ACQUISITION REVIEW COUNCIL

A. INTRODUCTION

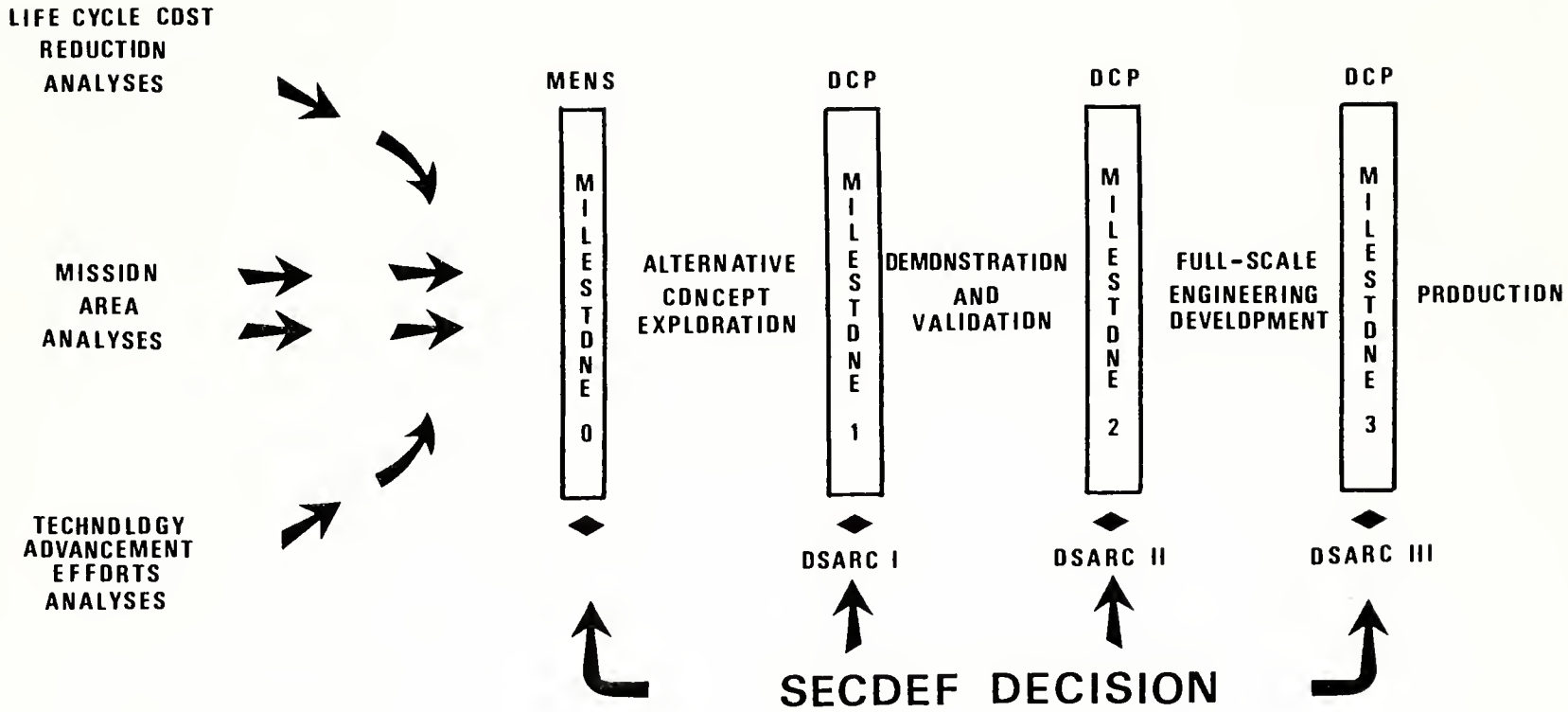
Although the system acquisition process terminology has undergone numerous changes, the basic process by which a need is transformed into an operational system remains essentially unchanged.

For management purposes, the life cycle of a major system can be broken down into five major phases (Mission Area Analysis, Alternative Systems Concepts/Exploration, Demonstration and Validation, Full-Scale Engineering Development, and Production) with a DCP decision between adjacent stages, except for the first two. See Figure 1.

The DSARC reviews major programs and ensures they are ready for transition from one program phase to another. The Council also reviews programs where a DCP threshold has been breached, where there is a major reorientation of the program, or where the threat changes.

The policy implementing directives, DODD 5000.1 and 5000.2 reflect the concept of maintaining viable options for meeting mission needs throughout the acquisition cycle. The DSARC makes recommendations to the Secretary of Defense regarding continuance, redirection or cancellation of a program based on its current status and the current needs of the DOD. In order to understand what happens in this decision-making arena, it is important to review the DSARC process itself.

LIFE CYCLE OF MAJOR SYSTEMS ACQUISITION



SOURCE: Researcher Drignated

FIGURE 1

Briefly the mission of the DSARC is to review major system acquisition programs at appropriate and significant milestone decision points to permit coordinated evaluation and deliberation among senior managers and to assure that complete and objective recommendations are given to SECDEF concerning the acquisition of major systems. The DSARC recommendations are used by the SECDEF as the basis for his decisions regarding program status.

The DSARC is composed of the following members: (1) Defense Acquisition Executive (DAE) (Chairman), (2) Under Secretary of Defense for Research and Engineering (currently assigned the position of DAE), (3) Assistant Secretary of Defense (ASD) (Manpower), Reserve Affairs and Logistics, (4) Assistant Secretary of Defense (ASD) (Comptroller), (5) Assistant Secretary of Defense (ASD) (International Security Affairs), (6) Assistant Secretary of Defense (Program, Analysis and Evaluation), (7) Assistant Secretary of Defense (Communications, Command, Control and Intelligence), and (8) Advisor to SECDEF on NATO Affairs. Other participants include: (1) Service Acquisition Executive, (2) Joint Chiefs of Staff Representative, (3) Defense Intelligence Agency Representative, (4) Cost Analysis Improvement Group Chairman, and (5) Director, Defense Test and Evaluation [57].

Each participating member has certain responsibilities for which he is accountable to SECDEF. The SECDEF holds primary responsibility for the key decisions at the transition between phases of the acquisition cycle and monitors the

program between decision points. From program inception to phase out, the Service Component has primary responsibility for program execution in accordance with SECDEF decisions. The SECDEF decision-making process is supported by formal review procedures. (See Figure 1.)

In the Mission Area Analysis phase the SECDEF, with the Service Components, will establish mission areas to reflect the several operating categories essential to accomplish the Defense mission. The Service Component Heads are responsible for the identification and definition of mission element needs and for initiatives to acquire new system capabilities essential to meet these needs.

At the request of the SECDEF or upon making a determination that a valid mission element need exists and a major system acquisition program is required to acquire a new system capability or a modification to an existing capability, the Service Component Head submits a description of the mission need to the Secretary of Defense, recommending approval of the mission and requesting authority to proceed with identification of alternative system design concepts as solutions to the need. SECDEF approval is required prior to the commitment of funds to the systematic and progressive identification of alternative concepts. This is done at Milestone 0. Such action to initiate a system acquisition program shall not constrain or impact any technology base effort [13:5].

The Mission Element Need Statement (MENS) is used to recommend the initiation of a new system acquisition program at Milestone 0. It documents the mission need and the essential supporting and planning information that may be required.

The MENS is then forwarded through the Defense Acquisition Executive to the SECDEF for approval. The SECDEF decision sets the conditions for program initiation and may be directed to more than one Service Component [13:6].

As a result of the competitive identification and exploration of alternative design concepts, the Service Component Head may conclude that the demonstration and validation phase should (1) involve several alternatives; (2) be limited to a single system concept; (3) involve alternative subsystems only and not be conducted at the system level; or (4) there should be no demonstration and the program should proceed directly into full-scale engineering development. A Decision Coordinating Paper (DCP) is prepared for the Milestone I decision recommending preferred alternatives for the Demonstration and Validation phase [13:6].

An important point to note here is that the Service Component Heads are not authorized to commit funds to the identification and exploration of alternative system design concepts to meet a mission need prior to the approval of a MENS by the SECDEF and the completion of action required by the Planning, Programming and Budgeting System (PPBS). SECDEF decisions at Milestones I, II, and III which are

reflected in the MENS or DCP are included in the FYDP documentation at the next Program Objective Memorandum (POM) submission or Program/Budget decision submission depending on the timing of the DCP. When a PPBS document offers an alternative solution that differs from the SECDEF decision as stated in the MENS or DCP, the difference will be clearly noted in the PPBS document and submitted to the DAE for coordination. These PPBS differences are reviewed and approved by SECDEF and incorporated into a revised DCP [13:8].

Upon completion of the Demonstration and Validation phase, the Service Component shall update the DCP to recommend the selection of a system for Full-Scale Engineering Development and Production. The DCP shall address the total program through completion. The Milestone II decision is a commitment to continue the program through the engineering development phase and includes procurement of long lead materials.

Finally, upon completion of the engineering development phase including the initial operational test and evaluation leading to the Milestone III Production and Deployment decision, the Service Component updates the DCP to recommend a commitment to production and deployment of the system [13:7].

B. DSARC DECISION-MAKING REQUIREMENTS

A basic assumption of the researcher is that there is a fundamental decision-making and management method by which

major defense systems acquisition should be managed. In its basic form, this method must contain elements and processes by which the following objectives can be achieved:

1. Key Decision-Making at SECDEF Level

Exactly what constitutes a key decision has been argued at length at all levels of the Defense Department (53][57]. Key decisions are few in number and must be of sufficient importance as to warrant the consideration and judgment of the Secretary. However, the Secretary must be involved in the decision-making process frequently enough to ensure that he has some measure of control over the progress of a program. Care must be taken to prevent the escalation of decisions "to the top" on issues which can and rightly should be made at a lower level within the Department of Defense. Escalation of decisions normally comes about either because individuals at a subordinate level are not willing to accept the responsibility for their decisions or because the top level manager (or his staff) is in doubt as to the decision-making ability of subordinate managers. In either case, the number of decisions placed before the top level manager becomes greater and control becomes more centralized.

Because of management layering at the OSD level, strong centralized control within OSD has created many management problems for the Services and their program managers. Examples of management problems include unnecessary delays in documentation review and approval (thus stretching

out the acquisition cycle), an increased number of program briefings and external influences from other offices outside the control of the program office's chain of command [41:35-36].

In light of this, the Blue Ribbon Defense Panel report stated the following:

> Indeed, attempts to over centralize decision-making at the top seriously impairs the Secretary's (SECDEF) capability to exercise effective control. Under such circumstances, far too many decisions go unmade, critical issues are not addressed, problems are deferred and the principle of personal accountability is lost in the confused maze of 'staff coordination.' [46:21]

2. Specific Assignment of Responsibility

In any major defense system acquisition there are almost countless tasks and functions that must be performed properly and in a timely manner in order for the acquisition to proceed. These tasks and functions must be identified and responsibility for their accomplishment must be established. When responsibility is initially assigned to an office or organization, it falls upon that office or organization to specifically designate the individual(s) who will be held accountable for the accomplishment of each task. By simply holding the Service Component or OSD responsible, the accountability is again lost in the "confused maze" of staff coordination.

3. Proper Timing of Decisions

In order for the decisions made by the Secretary of Defense to be effective and to provide him with the necessary

control over the acquisition of a new defense system, the timing of his decisions is critical. If a decision is made too early, it would be based upon incomplete and possibly incorrect information which could result in erroneous conclusions. Conversely, if a decision is made too late, there is essentially no decision to be made. The alternatives are limited to the extent that the decision becomes essentially an approval of what is already being done. Therefore, the point in time when the Secretary interacts in the acquisition process is of vital importance. The variety of situations encountered in individual acquisition programs precludes basing these decision points on a fixed time basis. As key decisions requiring Secretary of Defense action are defined, the timing is predicated upon the reasons for the decisions and what information must be available in order for the Secretary to be able to make a sound decision.

Decision-making at levels below the Secretary of Defense are equally important and must be approached in a similar fashion. Identification of decision points, the reasons for the decisions and the information necessary to support the decision and who is responsible for the decision must all be addressed so that decisions are made at the proper time, neither too early nor too late.

4. Adequate Monitoring and Validation

The necessity of having certain key decisions made at the Secretary of Defense level goes without question.

Although the Secretary may delegate responsibility for the development and production of a new defense system to a Service Component, he retains full responsibility for providing adequate national defense. This responsibility manifests itself in the decisions he must personally make. Also, the Secretary's responsibility requires that he have a means of monitoring program progress and for validation of Service Component recommendations. Here too, care must be taken to prevent the functions of monitoring and validation from becoming control and direction. In a bureaucracy the size of the Defense Department, there is a tendency for those charged with the task of monitoring or validating to become sufficiently powerful that they begin to control. This monitoring and validation requirement is also applicable at levels below the Secretary.

The process as espoused by Mr. Packard is simple in concept and sound as a management philosophy. It provides for key decisions to be made by the Secretary of Defense, continues the use of the Development Concept Paper (DCP) as the means by which issues and considerations which should go before the Secretary for decision are pulled together and agreement established between participants in a particular program, and uses the Defense System Acquisition Review Council (DSARC) as the body for making recommendations to the SECDEF [17:2]. Both the DCP and DSARC, when employed in this context, support the Secretary and provide him with a monitoring and validation capability while at the same time

retaining the desirable features of having the Service Component responsible for the development and procurement of defense systems.

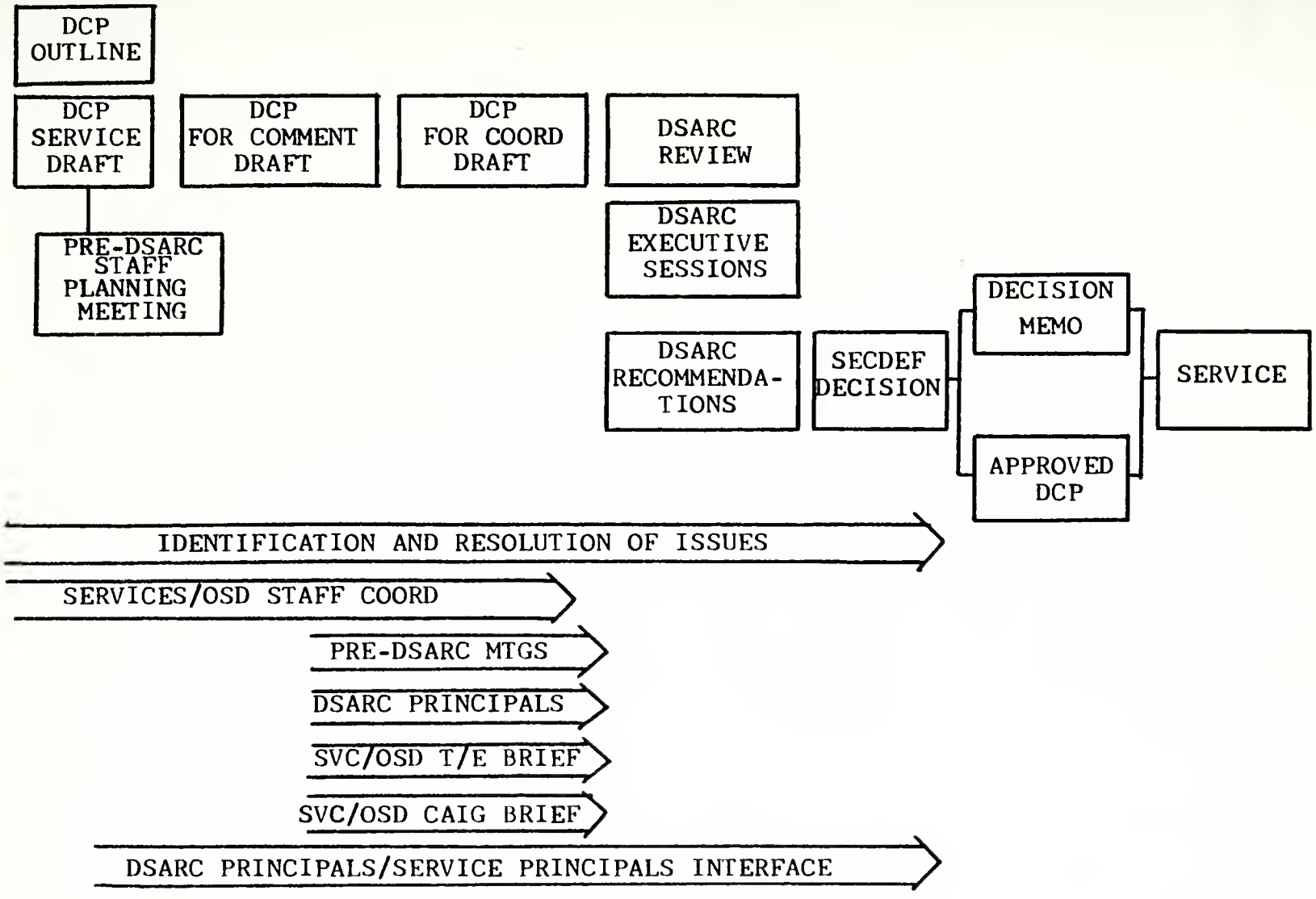
C. DCP/DSARC PROCESS

The above method for management and decision making is essential to the DSARC process. Because the process is basically the same for Milestone 0, I, II, and III in the acquisition cycle, with the exception of the criteria being used to evaluate the transition into the next phase, only one description of the process will be presented.

To begin, the DOD component initiates the DCP process with a request for a joint OSD/DOD component staff meeting. For this meeting the DOD Component prepares a proposed DCP outline. See Figure 2.

This requested meeting is scheduled through the Defense Acquisition Executive (DAE) and is chaired by his representative. The meeting is also attended by representatives of the Defense Systems Acquisition Review Council (DSARC) members, Office of Joint Chiefs of Staff, the Deputy USD (R&E) for Test Evaluation and the Chairman of the Cost Analysis Improvement Group (CAIG) in addition to the DOD Component Representative. Besides reviewing the DCP outline, this meeting sets dates for the (Service) System Acquisition Review Council ((S)SARC) and/or DSARC reviews, schedules events prior to the reviews, identifies program alternatives, issues and formulation to be considered and/or presented at the reviews.

DCP/DSARC PROCESS



SOURCE: Mr. J E Smith; OUSD/R&E [AP]

FIGURE 2

As a result of this meeting, based on the approved outline, the DOD Component prepares a "For Comment" draft DCP which is then forwarded to the DAE for Coordination with the OSD staff and the OJSC in conjunction with the DOD Component.

As a result of this coordination, the DAE takes the necessary action to resolve program issues and identify those that remain unresolved. The comments and the remaining unresolved issues are used by the DOD Component to prepare a second draft DCP which is then identified as the "For Coordination" draft DCP.

This version is distributed by the DOD Component to the DAE, (S)SARC and DSARC members, the Chairman of the JSC, the DUSD (T&E) and the Chairman of the CAIG. After review by the (S)SARC, the draft DCP is approved and a (S)SARC report is prepared.

The draft DCP and (S)SARC report are then reviewed by the Service Secretary and, if he is in agreement, approved and forwarded to the DSARC.

While the Service Secretary is approving the (S)SARC report and draft DCP, the Chairman of the CAIG provides the CAIG's evaluation of the program cost estimates and the DD(T&E) provides a T&E report to the DSARC members. Lastly, the DAE advises the DOD Component Head and other DSARC participants of any special presentation requirements for the DSARC.

The DSARC review is then held and major issues discussed. Following the completion of the DSARC review, the Chairman

of the DSARC(DAE) has a report prepared consisting of the DSARC recommendations and any dissenting positions including a clear statement of the issues. The DAE also prepares a proposed DCP action memorandum. This action memorandum is coordinated by the DAE with the DSARC members, the Chairman of the JCS, the DD(T&E) and the Chairman of the CAIG, with a draft copy to the DOD Component Head for comment. After this coordination, the proposed action memorandum is finalized by the DAE.

The DAE then forwards the draft DCP, the DSARC Report and the proposed action memorandum to the SECDEF for a decision. The SECDEF decision is consummated when he signs the DCP and issues the action memorandum. After this, the DOD Component Head has the necessary revisions made to the DCP, incorporates the SECDEF directions and distributes the DCP, thus completing the DSARC/DCP decision and approval process for either Milestone I, II, or III.

D. SUMMARY

This chapter has discussed briefly the events which take place within the DSARC. It provides for key decisions to be made by the SECDEF and DSARC documentation to support major weapon systems. In Chapter IV the Budgeting process will be discussed to identify how these acquisition requirements are identified and related with resources.

IV. PLANNING, PROGRAMMING, AND BUDGETING

A. INTRODUCTION

Mr. McNamara instituted several changes in the Department of Defense which were received with mixed emotions by OSD officials and members of DOD components. Among these changes was the introduction of the Planning-Programming-Budgeting System. This system was designed to provide the information in a form desired and to integrate it into a single, coherent management system. In the words of Mr. McNamara:

> ...this system serves several very important purposes:
>
> 1. It produces the annual Five-Year Defense Program which is perhaps the most important single management tool for the Secretary of Defense and the basis for the annual proposal to the Congress.
>
> 2. It provides the mechanism through which financial budgets, weapon programs, force requirements, military strategy, and foreign policy objectives are all brought into balance with one another.
>
> 3. It permits the top management of the Defense Department, the President, and the Congress to focus their attention on the tasks and missions related or our national security objectives, rather than on the tasks and missions of a particular service.
>
> 4. It provides for the entire Defense Establishment a single "approved" plan projected far enough into the future to ensure that all of the programs are both physically and financially feasible [45:194].

The researcher would emphasize that while investigating the philosophy and methodology of PPBS, one should not lose sight of the basic meaning and purpose that the system serves. The PPBS is a system for assisting choices related to the use of resources. It does not make choices. It does

not even reduce decisions to the selection of one clearly correct course of action. It has the built-in objective of expanding available alternatives. It does, however, have the facility of providing the ingredients of choice and the probable consequences of making alternatives extraordinarily clear. Central to this process of illuminating choice is the necessity for a program budget.

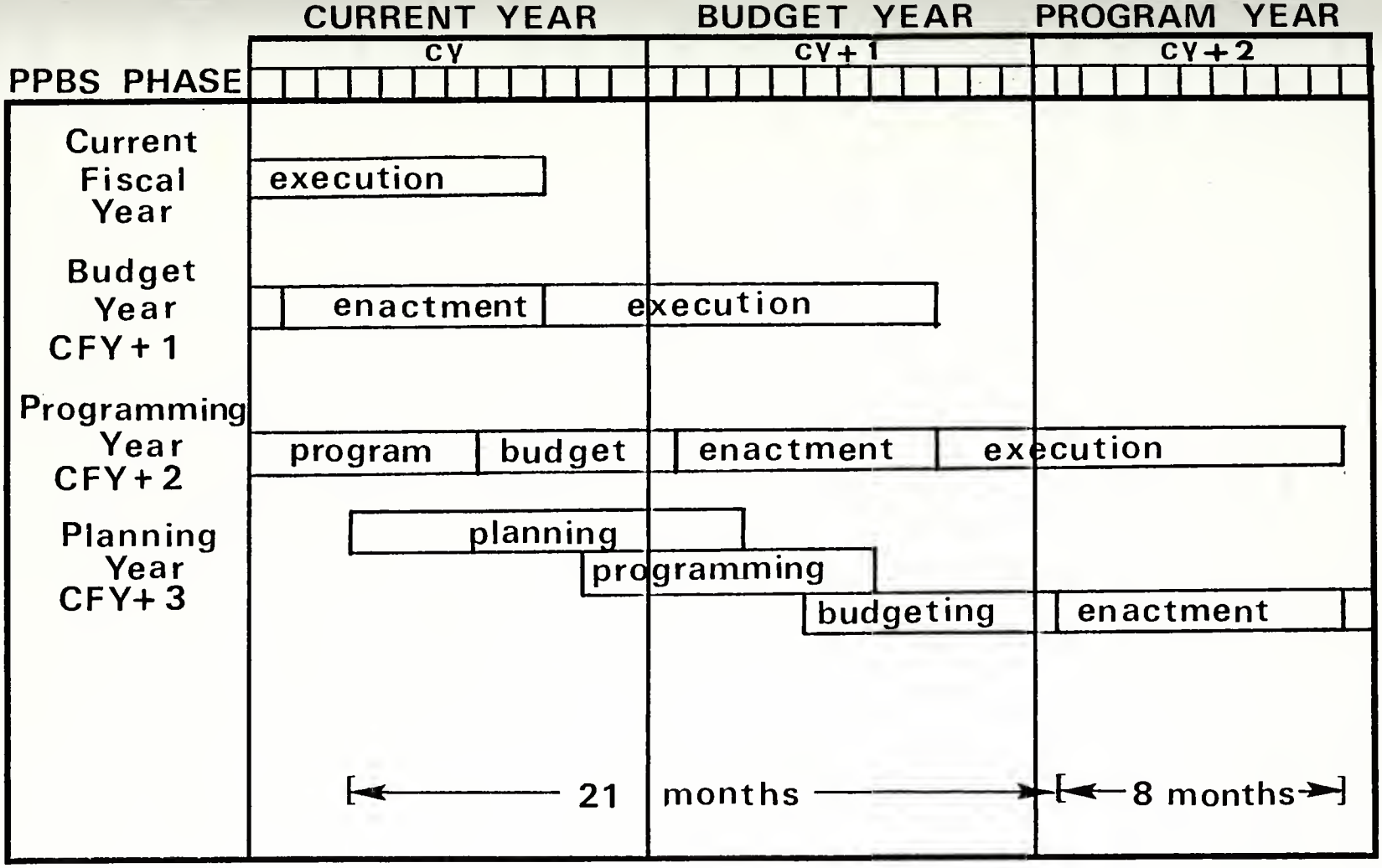
B. THE PPBS PROCESS

In the simplest view, the PPBS in the Defense Department is an attempt to arrive at the most effective allocation of resources to accomplish specific objectives in national defense. The procedure is analogous to even the most rudimentary budgeting process applied by any individual to his own budget.

The Planning, Programming, and Budgeting System in the Department of Defense is the process through which the Secretary of Defense administratively controls the military departments and defense agencies. It is through the PPBS that the Secretary of Defense provides policy and guidance on force levels, manpower and fiscal constraints, issues decisions regarding program goals to support the forces, and budgets annual funds to support the programs [22:2-6]. The main products of the PPBS process are the Five-Year Defense Plan (FYDP) and the annual budget. The FYDP is the official program of the DOD; it summarizes the approved five-year programs of all military departments and defense agencies. It is a viable plan which is updated three times a year as changes

occur in accordance with the PPBS cycle. The FYDP projects manpower and material requirements for five years and force levels for eight years. The FYDP is fiscally oriented and is not the vehicle through which the merits of new programs are judged. It is primarily concerned with balancing all approved programs within the financial constraints provided by the Secretary of Defense. The different services provide proposed revisions to the approved programs in the FYDP by the Program Objective Memorandum (POM). Because of the cyclic nature of the PPBS and the overlapping of the planning, programming, and budgeting phases, it takes approximately twenty-one months to get a new system into the budget.

Figure 3 illustrates the overlap in the PPBS phases for any given fiscal year and points out the reason for the twenty-one month delay in entering a new program into the President's budget. Note that in any current fiscal year there are three budget activities that take place [24:33]. First, the current fiscal year budget is being executed. Second, the budget for the "budget year" (i.e., the current fiscal year plus one) is reviewed at Service headquarters and Secretary of Defense levels during the first quarter of the current fiscal year and is submitted to the President for inclusion in his budget in January. The President's budget is then submitted to Congress for enactment for the next fiscal year (i.e., the budget year). Third, during the fiscal year, programming and shaping of the budget for the "programming year" (i.e., fiscal year plus two) takes place



THE PPBS OVERLAP SITUATION

FIGURE 3

SOURCE: Fiscal and Life Cyclesof Defense Systems p.35

as indicated in Figure 3. Finally, planning is done for the current year plus two and beyond. Indicated in Figure 3 is a time delay of twenty-one months from entering the planning cycle until the President's budget is submitted to Congress. It takes an additional eight months for Congress to enact the budget. So in reality, the minimum time delay in obtaining funds for a given program is about twenty-nine months [24:35].

Considerable controversy surrounds the concept and efficiency of the PPBS. Although PPBS has been practiced in the Department of Defense for more than seventeen years, it is not as universally understood within the Department as one might expect after such a long period of time. As a general observation, it can be said that ASD(PA&E) is the DOD manager of the Planning Phase of the PPBS, USD(R&E) for the Programming Phase and ASD(C) for the Budgeting Phase for weapon system acquisition.

According to Enthoven and Smith, a basic idea underlying the rationale for the PPBS is that top decision makers give explicit consideration to program alternatives [20:486]. The fact that USD(R&E) has become a major influence on the weapon system acquisition process in recent years is not generally contested. But, ASD(PA&E) still manages the planning cycle, including the PDM.

Even though ASD(PA&E) is the office primarily responsible for the planning phase of the PPBS, the impact of this planning on Services budgets is limited. Studies and force

planning trade-offs performed by ASD(PA&E) are just one set of many such plans developed by the Services, the Congress and the OMB.

USD(R&E), unlike Congress and OMB and even ASD(PA&E), reviews all service acquisition programs in detail. USD(R&E), responsible primarily for programming DOD resources, is intimately involved in all acquisition aspects of the PPBS from the publication of the POM's through the issuance of the PBDs.

The ASD(C), in this era of limited financial resources, has temendous influence in his position as manager of the budgeting phase of PPBS. ASD(C), as the final staff arbiter of what goes into the DOD portion of the President's Budget, reviews most, if not all, acquisition programs in the service budgets. Working closely with the Secretary of Defense, the Comptroller signs the PBDs which yield the actual figures to be included in the President's Budget. Even here, the USD (R&E) is an active continuing participant and his advice on a particular program is likely to be honored by the Comptroller. Between the USD(R&E) and ASD(C), the needs and costs of DOD weapon systems are genuinely considered together thus satisfying another of Enthoven and Smith's basic ideas underlying the PPBS [20:486-487].

The Defense Reorganization Act of 1958 gave the SECDEF the authority to make decisions pertaining to the planning, programming and budgeting process. Under the National Security Council, this legislation gave the SECDEF two distinct lines

of authority. A direct line of command was established through the Joint Chiefs of Staff (JCS) to the unified and specific commands. A line for administrative control of the military departments and for management of support of military forces was established through the Secretary of the Military Departments. The SECDEF issues decisions regarding threat appraisal strategy and force structure through the command line of authority. He issues decisions regarding programming of resources to support the force structure and budgeting of annual funds to support programs through the administrative line of authority.

The PPBS's organization and procedures involve the following steps, the schedule for which is established each year by the SECDEF.

The first phase of the PPBS, planning, sets the pattern for the entire process. Planning starts with the assessment of the threat to the security of the United States and culminates with the projection of force objectives to assure the security of the United States. For the FY81 Fiscal Cycle, this phase began in May 1977 and ended in March 1979. See Figure 4.

This planning phase began in May 1977 with issuance of the Joint Service Planning Document (JSPD) by the OJCS. This document has two basic parts: (1) Part I--Objectives, and (2) Part II--Needs these forces require to meet the objectives. From the JSPD, the SECDEF then issues his strategy guidance in the form of the Consolidated Guidance (CG). In

PPBS PROCESS FOR FY-81 BUDGET

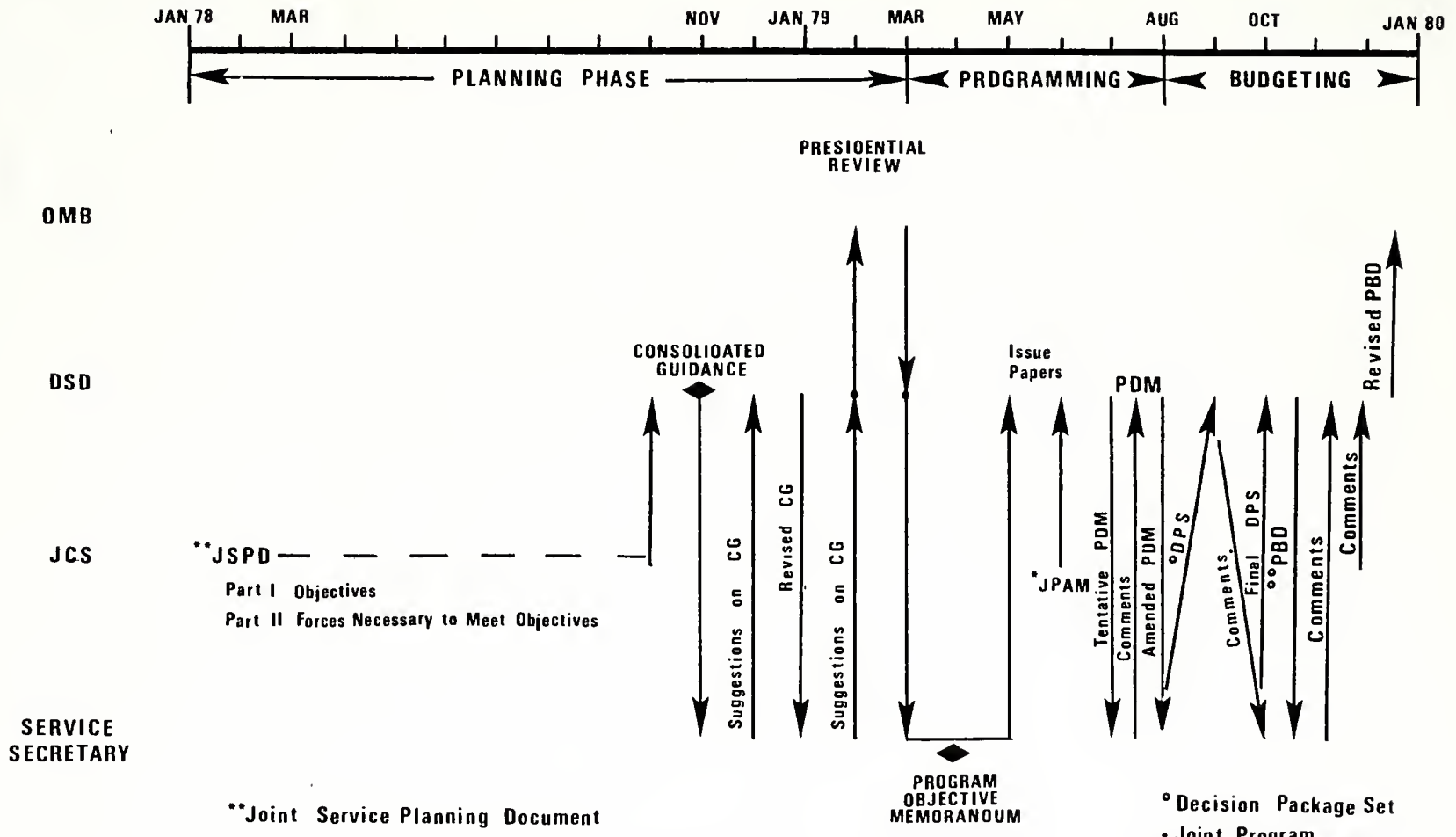


FIGURE 4

SOURCE : Researcher Originated

the November timeframe, the CG is provided to the DOD components and JCS for comment in event there are major differences in military objectives or in threat appraisal. In December 1978, OSD reviews the suggestions and alters the CG where applicable and resubmits the CG again to the DOD components and JCS for comment. Upon return of the CG, OSD prepares the final version of the CG, which occurs in the late February 1979-early March 1979 timeframe, and forwards it to the President for his review. This step completes the Planning Phase.

The next phase, the programming phase, is to translate the approved concepts and objectives, prepared during the planning phase, into a definitive structure expressed in terms of time-phased resource requirements including manpower, monies, and material.

In March, after the President has reviewed the CG, the DOD components are asked to prepare and submit the Program Objective Memorandum (POM) to OSD. The POM will describe and justify each program regarding manpower, monies, and material. The POM is forwarded to OSD in May 1979 for the FY81 Budget. After review by OSD, some programs are eliminated while others undergo schedule and funding alterations. Because of these modifications, the DOD components are given the opportunity to reclama through issue papers. In June 1979, the Joint Program Assessment Memorandum (JPAM) is drafted by the OJCS and forwarded to OSD. As a result of the POM, issue papers and the JPAM, OSD drafts and prepares a tentative Program Decision Memorandum (PDM) for each

program for review and comment by the OJCS and the DOD components. The review comments are appraised by OSD, following which, each PDM is forwarded to the SECDEF for final approval.

Once the PDM has been completed, the DOD components prepare and forward Decision Package Sets (DPS) for their programs to OSD for inclusion in the budget. After OSD has commented on the DPS, a final version is prepared. This completes the programming phase.

The budgeting phase is the final effort of the PPBS. The annual budget expresses the financial requirements necessary to support the approved forces and programs. It generally begins in the September to October timeframe, one year prior to Budget year approval.

The Office of Management and Budget (OMB) provides SECDEF with budget guidance based on the President's budget policy. In turn, the SECDEF establishes his budget policy and issues guidance to the DOD components in August. The DOD components then have until October to submit their Budget Estimates to OSD.

Following this submittal and analysis by OSD, a series of Budget Hearings are held, attended by the SECDEF and various DOD component heads, for resolution of problem areas. OMB representatives usually participate in these hearings. Based on the submittal of Budget Estimates and the Budget Hearings, the SECDEF issues a series of Program Budget Decisions (PBDs) in late October. Between October and December, the OJCS and the DOD components have an opportunity

to comment on the PBDs after which SECDEF issues revised PBDs, as necessary. Any unresolved budget items remaining at this time are discussed in joint meetings between the SECDEF, OJCS and DOD Component Heads. The SECDEF then makes final decisions and submits his proposed DOD Budget to OMB. This action completes the budgeting phase.

Of the many innovations introduced into the field of management science in recent years, none have been more controversial than the PPBS developed by Robert McNamara for the DOD in 1961. The utility and worth of the PPBS are still sharply debated today. There is considerable disagreement among those who have studied the PPBS as to what is is intended to accomplish and what it actually has done during its eighteen years of existence.

The recent establishment of the Defense Resource Board as recommended by the Defense Resources Management Study was a step taken to try to improve the decisions within the PPBS process and insure an interface of the decisions in the acquisition process and the resources available to support these decisions. The DRB would also provide organizational interface. The DRB is made up of the Deputy Secretary of Defense (Chairman) and four other members: The USD(R&E), the ASD(PA&E), the ADS(C), and the ASD(MRA&L) [41:ix]. The actual accomplishments of the DRB are questionable at this time because of the infancy of the Board. The first product will be the FY-81 budget. The DRB itself is worthy of separate research work.

C. SUMMARY

The system acquisition process is intimately associated with the PPBS. In the DOD, as elsewhere, programs cannot be considered in their proper perspective without considering at the same time the PPB system. Similarly, the PPBS's is incomplete without consideration for the acquisition of systems needed by the DOD to accomplish its mission requirements.

In order to fully understand this truism, one merely has to recall that the PPBS comprises the various aspects of a system (i.e., it includes planning, and programming documents) that permit the establishment, maintenance and revision of the Five-Year Defense Program (FYDP) and the DOD budget. The FYDP itself, is the the official DOD document which summarizes the plans into tangible programs (and associated budgets) approved by the Secretary of Defense. As a result, a change in program content in the acquisition of a system, a change in the FYDP, or a change in the Budget all affect each other.

The importance of the interrelationship and how the acquisition and PPBS process impact each other will be discussed in Chapter V. One of the key factors in the procurement of a major weapon system is that this interface and relationship is properly established and maintained throughout the Life Cycle of a program.

V. RELATIONSHIP BETWEEN THE PPBS AND THE DSARC PROCESSES

A. INTRODUCTION

This chapter describes how the DSARC process is related to the PPBS process. While some of the material is duplicative of that presented in previous chapters, the entire process is illustrated here to show the effect of one process upon the other.

B. THE BUDGET PROCESS

In the budgetary process, funds requested are reviewed and authorized annually according to the functional activities involved, i.e., personnel operations, maintenance, etc. In the programming system, funds needed are forecasted for the current year and five years ahead, according to the missions the funds support.

The approved budget becomes the financial plan for the DOD during the fiscal year. Most budget authority, and other budget resources, are made available by the Office of Management and Budget (OMB) under an apportionment system that assures the effective and orderly use of authorized funds.

The Congressional Reform Act of 1974 requires the Executive agencies to submit their budget request in mission-oriented terms beginnin with Fiscal Year 1979. The procedures spelled out by the Congressional Budget and Impoundment Control Act of 1974 were to give Congress a chance to weight

the relative merits of various programs and to cut those programs that it finds ineffective.

The PPBS process is considered to be the rational approach for meeting this requirement and conducting DOD business [30:25].

C. INTERFACE REQUIREMENTS

Department of Defense management decisions regarding program initiation, restructuring, and continuation must be validated or confirmed in two separate arenas: the acquisition milestone review process (DSARC) and the planning, programming, and budgeting process (PPBS). As with any dynamic organization, DOD receives inputs of resources and returns products and services as an output. The monetary allocation function is accomplished by the PPBS process and is separate from the expenditure function which is monitored and guided by the program acquisition review process. In order for a program to continue through its acquisition cycle without major setbacks or interruptions, it must be supported with compatible decisions in both processes. As stated in DOD 5000.1,

> Secretary of Defense Milestone decisions to initiate system acquisitions or to redirect the program do not authorize the commitment of funds. Appropriate action will be taken to reflect the decision in the PPBS documentation for budget approval and funding [13:2].

During each major phase of the DSARC process, OSD will approve PPBS documentation for budget approval and funding for DOD.

The PPBS reviews determine the requirements which are included in the DOD budget request which is forwarded to Congress. During PPBS budget review, a program is challenged

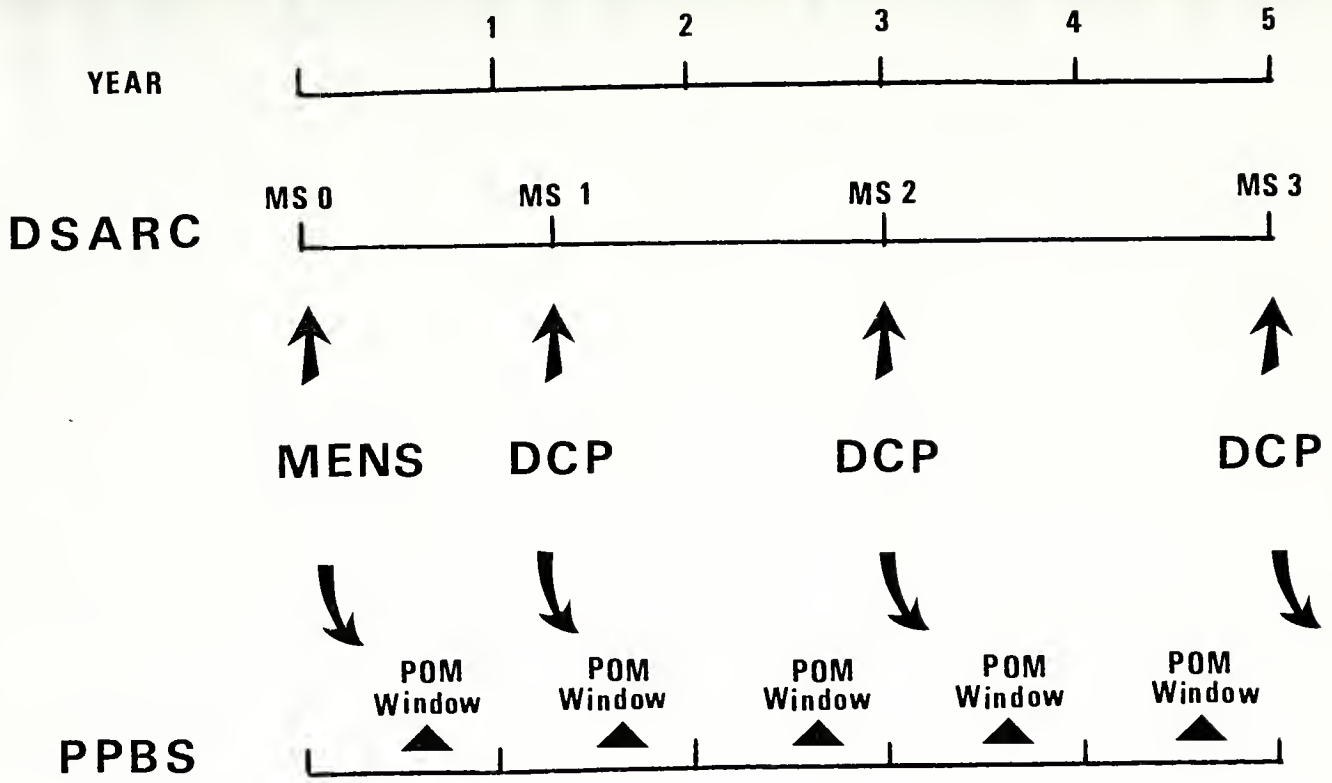
as to its necessity and validity as part of the total DOD program, and as to its priority among other requirements in the DOD. In contrast to this, during the acquisition review process, decisions focus on the merits of the program itself, and not on its position as part of a total service structure.

Because of the requirement for continuous coordination and the fact that milestone review decisions do not always occur with their related PPBS decisions, a requirement exists for a strong and calculated interface between the two processes. In the following sections the researcher will present the various aspects of this interface.

D. INTERFACE VIEWED FROM THE DSARC PROCESS

The DSARC process addresses issues related to the progress of individual defense system programs, and ensure timely SECDEF review. This review is related to the individual program schedule rather than the PPBS schedule and is usually much longer.

It is possible for two or more POM reviews to occur in the PPBS process in the same time that it takes a program to move from one milestone to the next in the DSARC process. This is shown in Figure 5. Therefore, it is generally accepted that the DSARC process is a long-term plan and the PPBS POM operates on a short-term (yearly) basis. Because of this, DSARC decision documents (MENS, DCP, etc.) became a part of an important interface relating various decisions made in the DSARC process to the PPBS process.



DSARC DOCUMENTATION INTERFACE

FIGURE 5

SOURCE: Reseacher Originated

As depicted in Figure 5, the DSARC and PPBS processes are linked by the DSARC decision documents at the time of program initiation and major milestone reviews. The MENS is one key interface which has been established because of the importance and emphasis on "front-end" planning. This has resulted from two things. First, there must be a mission to justify the need. Secondly, the MENS serves as a budget justification document unique to major weapon systems, supplementing the normal POM and budget submissions [55]. It is anticipated that in the future, the MENS will serve as a signal to the budgeting process to expect funding requirements for a new program.

The MENS is prepared for all Acquisition Category (ACAT) I and selected ACAT II programs. However, the DOD is attempting to utilize a "mini" MENS in the same function for ACAT II-IV programs. With the ACAT II through ACAT IV programs, program element numbers are assigned after initiation approval and a funding line item is established in the budget. For ACAT I programs (and selected ACAT II programs), the review is more detailed and the budgeting process is more involved.

The DCP augments the PPBS by addressing issues related to the progress of individual defense system programs. It is the document that records the SECDEF decisions pertaining to an ongoing program. Depending upon when the DCP related decisions are made will generally determine how the decisions will be reflected into the PPBS process and the means by which it will be accomplished (e.g., whether it will be

reflected in the Five-Year Defense Plan (FYDP), the Program Objective Memorandum (POM), Issue Papers, or Program Decision Memorandum (PDM) process).

To ensure that the review and decision processes are complementary, a program manager, working through a program sponsor in DOD, should attempt to schedule DSARC reviews so that decisions resulting therefrom can be incorporated into the yearly POM cycle. The program sponsor is responsible for insuring that SECDEF decisions made during the DSARC process are fully funded during the POM process by working closely with the resource sponsor, and that funding levels are in conformance with decisions previously made [22:30].

Program milestone decisions which are not synchronized with the POM cycle (as depicted as MS II of Figure 5) and which require changes to the FYDP must be accomplished by means of a Program Change Request (PCR). Generally, in this event, funds must be reporgrammed within the Service Component. If the program does not have sufficient priority to warrant such reprogramming, the Service Component has the risk of program delay for at least one year.

The DSARC documentation is an important interface for the transfer of information from the DSARC process to the PPBS process. In the next section, the interface from the PPBS and its effects on the DSARC process will be presented.

E. INTERFACE VIEWED FROM THE PPBS PROCESS

The PPBS becomes important to the DSARC process during the annual POM cycle. The POM, therefore, is another key interface

because each POM is used by SECDEF to propose programs and solutions to satisfy the need and strategies developed during the planning phase. Resource requirements for a new program are entered into the programming and budgeting portion of PPBS by means of the POM. Even though such a recommended "new start" does not become an approved SECDEF program by this process, it is still necessary to "line up" funds prior to SECDEF approval, because of the twenty-nine month delay between planning and budgeting built into the PPBS process [24:35]. The annual POM submission is basically a modification of the previous year's submission, updated to reflect new programs, changes in existing programs, and current guidance from OSD.

A key point here is that even though SECDEF decisions during the DSARC process do not authorize funding, approved changes by the SECDEF to a program and budget decision process of the PPBS constitute budget approval and funding. These changes are to be incorporated into the DCP within thirty days of such a decision [5:10][15:5].

From another stand point, the decisions made by the SECDEF during the DSARC process must be reflected in the Five-Year Defense Plan (FYDP). This should be accomplished through the Program Objective Memorandum/Program Decision Memorandum process depending upon where in the DSARC process the related decisions were made [41:17].

The requirement for interface between the two processes is a valid one. In the PPBS, the need for close coordination is particularly necessary in the POM/PDM arena.

F. ORGANIZATIONAL INTERFACE

As discussed in Chapters III and IV, the principal reviewers and decision-makers in both processes are the same. Because of this fact, decisions that are made in one of the processes should be easily developed and supported in the other process. Within the offices of these principal decision-makers, decisions and documentation should flow smoothly because the necessary program background has already been established by one of the process reviews.

The Defense Resources Management Study (DRMS) recognized this requirement and recommended the establishment of a Defense Resources Board (DRB) to manage the combined program/budget review. The Board would ensure a collaborative review of service program/budget submissions by the OSD officials most directly responsible. The Board could conduct work sessions without the Chairman having to be present. The ASD (PA&E) or the ASD(C) would preside depending on the subject [41:22].

This is a key interface because opinions, support and office guidance are developed early in the program which helps determine if the program will survive.

G. SUMMARY

In this chapter the requirement for a relationship between the DSARC and PPBS processes was discussed. Between the two processes there is a gray area of mutual interface. The Navy Marine Corps Acquisition Review Committee (NMARC) recognized the potential disruption to Navy programs and objectives

which could be caused by conflicting decisions in the two processes and cautioned that, "overall goals must be well-defined in relation to OSD guidance and projected resources in order that OSD top level commitment can be secured similarly through the DSARC and PPBS process." [34:37] The study also noted that decisions are not automatically coordinated between them, particularly in the area of supporting documentation.

In the next chapter, the problems relating to the interface between the two processes will be presented.

VI. PROBLEMS ASSOCIATED WITH THE INTERFACE

A. INTRODUCTION

This chapter will address the problems associated with the DSARC/PPBS interface. In developing the analysis in this chapter, the researcher has incorporated points surfaced during discussions held with OSD and Navy representatives as well as papers, statements, memos, etc., furnished by the Service Components and the DSARC principals relating to the problems.

B. PROBLEMS

1. Requirement for More Staff Clarity in Staff Responsibilities

Interviewees noted that the implementation of DODD 5000.1 has been marked by a trend toward more and more OSD staff involvement in the management of various aspects of on-going major acquisition programs. Also, DODD 5000.2 tends to encourage the OSD staff groups toward this undue involvement at ever-increasing levels of detail. Moreover, claimed several interviewees, the existence of a DSARC program management process alongside, but independent of, the PPBS resource allocation process has caused the overall organizational design within OSD to become pluralistic and redundant.

There is a requirement to clarify the OSD functional staff responsibilities as distinct from responsibilities of the DSARC principals. Acquisition managers and key personnel

involved in weapon systems acquisition were unanimous in noting that staff "layering," wherein each staff element or layer in OSD had almost autonomous power in its assigned functional area, was a major irritant to effective acquisition management. It was observed that there are too many personnel at the OSD level involved in the two processes, thereby resulting in a widespread decoupling between the decisions resulting from the two processes.

Because some staff members feel the reduction of decision-making power, they tend to push more than what is necessary up the chain for approval. This in turn creates centralization at the top of the system. This is exemplified in the DSARC process at DSARC I, where each candidate system is examined without regard to competing users for DOD funds. The "budgeting manager," ASD(C), sits in the DSARC meetings and through the lack of procedural or political control over decisions permits a program to proceed without regard to available funding [57].

Underlying this basic problem of raising the level of decision-making within the organizational activities is the influence of the political environment. Even though the acquisition process itself is uniquely designed and intended to be relatively insensitive to the flow of political problems which surround it, there has been an increasing tendency for political influence in the decision-making process [57].

It was pointed out in the Task Force Study that part of the organizational design problem in recent years has been

a political structure which has created several managerial problems. Primarily as a result of changes in personnel and viewpoints within DOD, the Congress, the Executive Branch external to DOD, and in the public sector, there are frequent shifts in the perceptions of priorities, alternatives, and appreciation of the external threat which caused the program to be approved for development in the first place. Such changes often result in major redirection of the program, with attendant increases in overall cost and significant delays in the schedule [38:60].

From discussions with OSD officials, the natural reaction to these redirections is to assume that the troubles arise from inadequate preliminary study and program definition. This in turn causes more and earlier reviews of programs. The earlier and more frequent reviews make it hard to properly plan a program because of the lack of necessary data to support the decision-making process. The decision-making process is then caught up in a vicious cycle [56][57].

2. Inconsistencies Within the Organizational Guidelines and the Processes Themselves

a. There Is An Increasing Amount of Time Associated with the DSARC Process.

Interviewees noted that there has been an ever-increasing amount of time associated with phases of the DSARC process which impact directly on schedule and cost growth. There has been nearly a three fold lengthening of the "front-end" process (time to reach DSARC II). It has become impossible

to follow the progress of decision commitments envisioned in the DSARC process and relate them to the appropriate phases of the PPBS process. It has also become difficult to prevent decisions from being reversed over those in the initial DSARC review of a program because the present availability of PPBS channels makes it possible to sidestep DSARC decisions [38:38].

b. The PPBS Process Has Never Had An Explicit Management System for Tracking Progress Made in Implementing Approved Programs.

Program decisions are generally based on comparisons of estimated capabilities associated with alternative resource allocations. Analysis supporting such decision processes incorporates explicit management goals, scenarios, and support assumptions. In this case, fiscal accounting, oriented to fiduciary responsibilities, does not provide adequate measures of program execution. The system lacks some means to make adjustments for past decisions [38:34].

A good example of this is that decisions are presently being made which will affect next year's budget and subsequent year's funding. Interviewees claimed that these decisions could be ignored during the next year's budget review. The process has the problem of repeated yearly approvals, with little regard for the decisions made the previous year, based solely on current priorities [20:478].

As noted in the DRMS Final Report, there exists a difference between the fiscal guidance or the level of resources needed to carry out "approved" programs, and the actual funding levels that occur in the budget [41:6]. For example, the FY 1979 budget total was $10 billion lower than the fiscal guidance for FY 1979 provided a few months earlier. In other years, the "approved" program has contained deferrals from prior years and other choices which, all together, total much more than the DOD budget is likely to be. This creates fiscal gaps. Such fiscal gaps defer the hard decisions beyond the programming phase to budget time, and set up pressures to unbalance the program as a way of coping with budget "cuts" in the final stages of budget review, effectively wasting much of the previous discussions [41:7].

c. There Exists Inflexibility Within Both the DSARC and PPBS Processes.

A manifestitation of DSARC/PPBS process inflexibility is the situation where initial program requirements and specifications are viewed as sacred and unalterable. This occurs even though, as the acquisition program progresses, there are almost always opportunities for revising and refining the initial performance criteria in order to achieve reductions in cost or schedule, or even optimization of performance in the final end product. The Task Force Study emphasized the need for a flexible environment, in order for the design to evolve in the most cost effective manner, rather than being restricted to a single point which was established initially [38:41].

There is also a need for greater flexibility in the application of established acquisition program review and approval activities such as the DSARC process itself. Adherence to the formally prescribed DSARC Milestones (I, II, and III) for every acquisition program is counterproductive [38:4]. It should be noted that A-109, while clearly defining and describing these individual milestones, does not indicate that they cannot be combined or eliminated to fit the needs of each particular program. It was noted in the Task Force 77 Study that based on prior practice, it seems highly likely that the tendency is to require strict adherence to each of these major decision points "because they are called out in A-109." [38:42]

> In the case of conventional Navy ships with state-of-the-art subsystems, for example, the lead ship could be subject to a single combined DSARC for Milestone I, and II while the following ships could be subject to only a Milestone III review point. In the case of Naval ships with major advanced subsystems, the combat system and the ship could be subjected to a combined Milestone 0 and Milestone I review in which the major emphasis is on the MENS for the combat system, while the entire ship weapon system combined would be examined together at Milestone II and III. Unconventional ships would be subject to the complete MENS approval and DSARC review process at each of the four milestones as prescribed by A-109 [5:22].

This illustrates the possibility for a spectrum of applicability of the A-109 review/decision milestones which would permit the basic policy to be more flexible in order to meet the needs of each individual program in both the PPBS and the DSARC processes.

d. Insufficient Recognition is Given to Coordination Between the Two Processes in the Area of Funds Availability.

Funds availability is very sensitive in its potential impact on both processes in the political, financial and technical areas. As previously discussed, the planning, programming and budgeting system functions independently of the DSARC process.

Under current acquisition policies and practices, there is insufficient recognition given to the probable impact of program risks in the development of funding estimates and program budgets. There is insufficient flexibility to permit program modifications needed to meet threat uncertainties, or even to solve the technical problems which most assuredly occur in every program. At the present time the program manager must commit to execute a task for a relatively precise amount of funds some two to three years before the task itself is to be undertaken.

The current reprogramming authority is inadequate to meet the needs of current programs, having been established many years ago when the value of the dollar was greater than at present. The reprogramming limit of $2 million for R&D and $5 million for production simply cannot be responsive for effective management of today's acquisition programs [47][55]. Although it is expected to be very difficult to accomplish, it appears what is needed is Congressional authorization of revised limits on reprogramming authority to reflect the

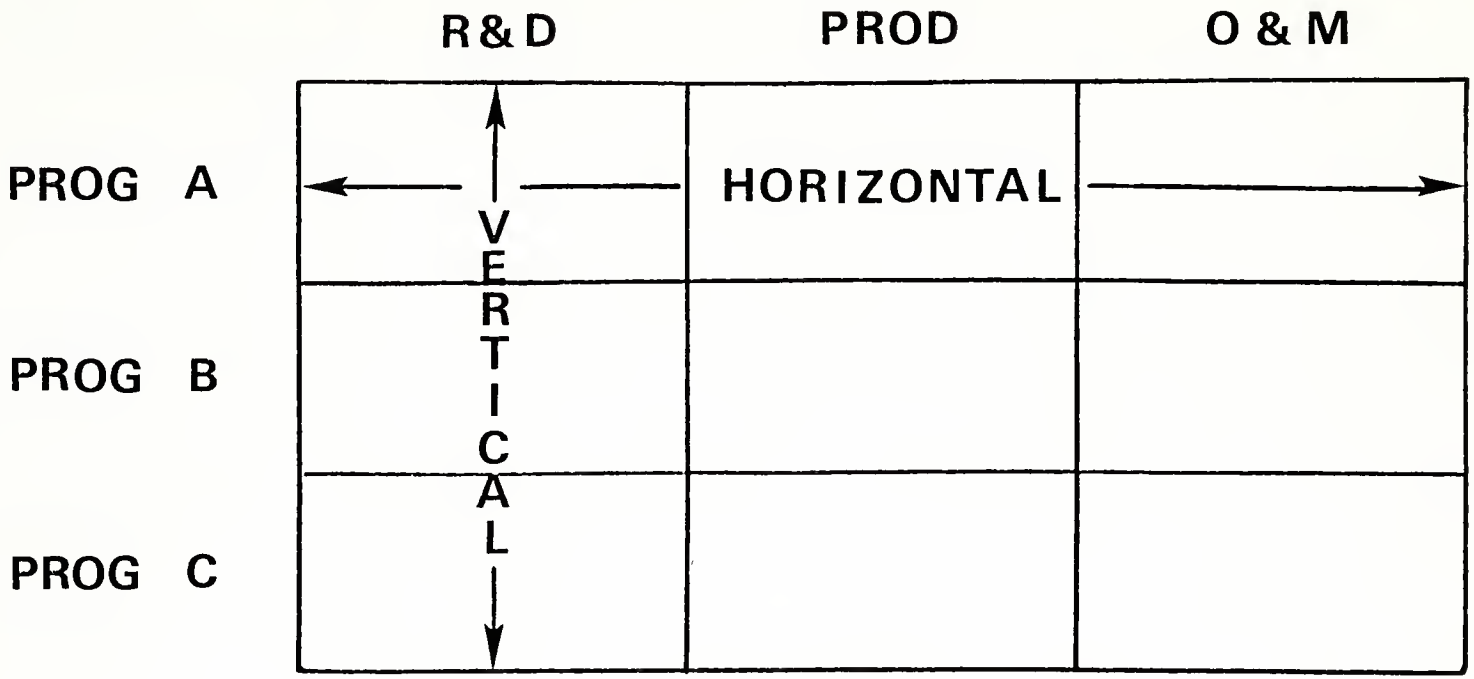
current dollar equivalent of the $2 and $5 million limits which were established more than ten years ago [55].

Further, additional budget flexibility is needed to permit the immediate follow-up of a Milestone 0 program start with studies necessary to support the Alternative Concept Exploration phase. When a MENS is approved, action in the form of resolving the issues and defining a program within a year is obviously necessary. However, a major program decision is usually accompanied by a budget change which is not effective for at least one year and might not be effective for as long as two years. As stated in Chapter IV, this is due to delays in the PPBS process and the point at which a system enters the process.

e. Inconsistencies Within the Organizational Guidelines and the Process Itself Result in Other Inefficiencies in Budgeting.

An example of this is the allocation of resources to a program. That is, each year in the POM cycle and on the established FYDP, a program is given a program element number and funding is allocated to this program in a horizontal manner (i.e., Research and Development, Production, Military Construction, Operation and Maintenance, etc.). These different categories of funding are apportioned between several programs vertically. (See Figure 6.) In most programs where reprogramming is necessary, there is no movement of funds horizontally between funding categories due to appropriation restrictions. The tendency is to move monies vertically, if

ALLOCATION OF FUNDS



SOURCE: Researcher Originated

FIGURE 6

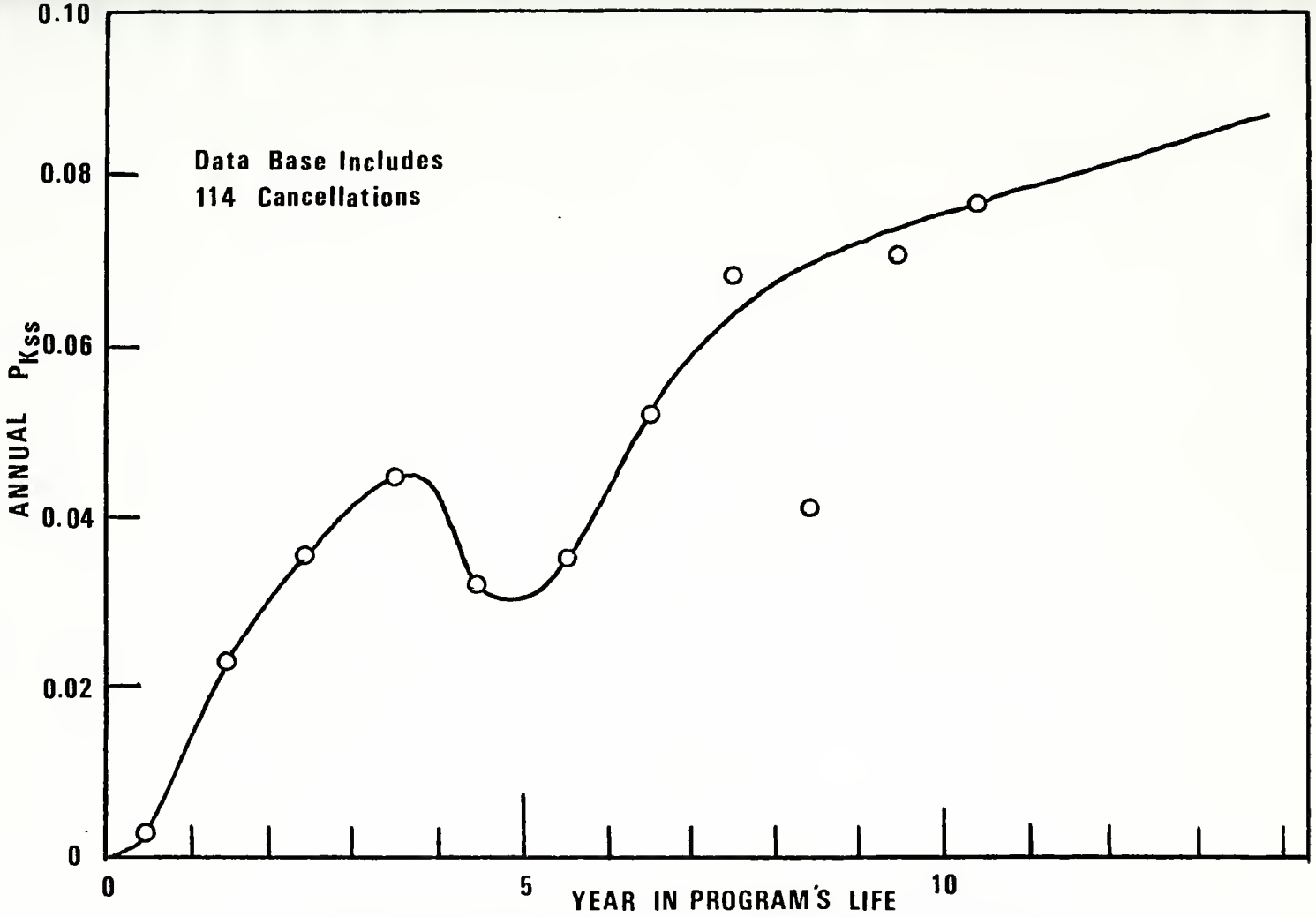
reprogamming is required. For example, if program A's R&D resources in Figure 6 were cut and the program could not perform efficiently with the amount of funding remaining in the budget, the natural tendency would be to "borrow" funding from programs B and C even though there was excess money within program A in other funding categories (i.e., Production, O&M, etc.). If the resources are available to be "borrowed" from programs B and C, this approach can be used, but if not, the system does not work. In any event, the interface to reflect this reprogramming readily into any of the programs is not there, and funding which appears to be available in the PPBS process may have already been committed. On the other hand, if program A takes a cut in R&D or Production funding and funds cannot be provided to meet the planned schedule, consideration should be given to reducing the other areas of funding (i.e., MILCON, O&M, etc.) or even cancellation of the program. This relationship between the programs and apportionment is critical. Interviewees state that the appropriate approach is to review both processes at the same time.

f. The Lack of Program Cancellation As A Viable Alternative Has Caused the Problem of Program Stretch Outs.

This problem has evolved as a result of the increased requirement for resources to get new programs funded which have been approved in the DSARC process. An example is the F-15 program where the production rate was dropped below

that which was efficient for the contractor to maintain in order that other Defense programs could be both established and continued [53]. In this area a lack of interface between the short-range POM cycle of the PPBS process and the long-range plan in the DSARC process exists. This has created a need for some method to incorporate long-range thinking and affordability considerations into the PPBS process together with a viable tool to manage it.

The data assembled by the Task Force Study, in 1977, provides an interesting insight into the relationships between the length of a program and the probability that the program may be cancelled at any point during its typical 8-10 year development cycle. Figure 7 summarizes the data on a large sample of programs (114) and illustrates the relatively high probability that a given undertaking will be cancelled before producing a combat-useful product, particularly if the Full-Scale Engineering Development phase extends beyond five years in length. The dip in the annual probability of cancellation which occurs at about three and one-half years after start of Full-Scale Engineering Development reflects the availability of initial test data, which has a tendency to support FSED. As the test and development effort continues beyond five years, problems of a technical, schedule, and financial nature tend to come up, leading to growing disenchantment with the project and an increasing probability that the program will be cancelled prior to completion of FSED.



PROGRAM SURVIVAL FUNCTION

SOURCE: Report of the Acquisition Cycle Task Force 1977 Summer Study P.61

FIGURE 7

The DRMS Final Report addressed another consequence of neglect for cancellation considerations in that some issues do not get enough attention. One such issue is the availability of adequate funding for the program being reviewed and approved. Programs are approved for Full-Scale Engineering Development and Production when the funds available for those activities are known to be inadequate. The usual result is insufficient initial funding, followed inevitably by schedule slippage and eventually, increased program costs [49][53].

The Acquisition Advisory Group (AAG) report also noted this problem of internal management control (or lack of success) of major weapon system programs. It was noted that there was an apparent lack of coordination among the processes which resulted in program instability for some major weapon systems [1:25].

It was also noted by AAG that there had been a number of complaints by the Services that the PPBS process had often resulted in decisions contrary to DSARC decisions which had several adverse effects on major programs. It was claimed that such decisions were made without proper consideration of program impact. The OSD Comptroller then pointed out that DSARC decisions cannot be either final or binding without regard to available financial resources. The AAG agreed that in each budget cycle, it may be necessary to reallocate financial resources and that this may need to be done in some cases in spite of actions taken on prior DSARC recommendations [1:26].

g. There Exists A Common Threat Relating to Program Advocates and Advocacy.

It was clear that development programs which lacked strong advocacy were much more likely to be cancelled than those which had energetic and dedicated advocates. The Condor program is a typical example of an effort which ultimately was cancelled because the program simply lacked strong advocates for the particular operational capability which it was intended to provide [38:42]. In a more recent case, the B-1 program, which had clear cut advocacy for much of its life, eventually lost the most influential of its advocates in the Executive Branch following the change of administration and was cancelled by Presidential order.

On the other hand, there are numerous examples of programs which appear to be continually in trouble for one reason or another (e.g., F-14 and F-16) which are carried on year after year because they have the support of active and vocal advocates, either in the Sponsoring Service, in OSD, in the Congress, or elsewhere. It seems clear, without advocacy, the chances of a program proceeding through its complete acquisition cycle into production and deployment are significantly diminished, while with strong advocates, certain programs may be continued in existence long after they should have been terminated for technical problems, inadequate capability, cost or schedule overruns, or similar reasons.

The Task Force Report indicates program advocacy may be either good or bad in terms of system acquisition. It

is often a necessary ingredient if a program is to be continued through to completion, and a lack of advocates can spell serious danger even to a "good" program. In other cases, strong advocacy may result in the continuation of programs which would otherwise be terminated. Such advocacy covers the entire range of possibilities: It may be political, it may be mission-oriented, it may be extremely parochial, it is often misdirected and misused, and it is frequently needed [38:43].

C. SUMMARY

There have been several persistent problems in the acquisition of major weapon systems with no apparent solution in sight, even with the numerous efforts to bring about change. Existing DOD directives and instructions do recognize the need for insuring review by the SECDEF whenever recommendations emanating from the PPBS process are not compatible with DSARC decisions. The DSARC process is basically sound, but sometimes lacks adequate evaluation of initial cost estimates, life cycle costs, development alternatives and prototype hardware which in turn produces some inconsistencies with the PPBS process.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

1. There is a lack of a coordinated interface between the DSARC and PPBS processes. The interface requirements exist but both systems function independently of each other.

The documentation in both processes discussed in Chapters V and VI are presently being used inefficiently because there is no policy guidance on exactly how they will be incorporated in the different processes. Also, because of timing, the phasing differences of the two processes makes the use of these documents ineffective. In order for the two processes to function smoothly and efficiently, effective interface is absolutely necessary.

2. There is a lack of uniform implementation of decisions between one process and the other.

This is partially reflected in the first conclusion. Because of funding resources during the DSARC, either a consolidated review for both processes or reduced time interval between the processes is required. This problem was discussed in Chapter VI and supported by the DRMS Final Report.

3. Political conflict is inherent in both processes. When advocacy is used properly, it enhances the interface and decision flow readily from one process to the other insuring appropriate survivability.

A key to program survivability is to insure major decision-makers support the program. This aids the consistency of the decisions made in both processes. Presently because of political conflicts or lack of advocacy, there is an undercurrent within DOD that can seriously hamper a program's survivability. If the support is not attained early, the program can be delayed or cancelled.

4. The phasing of the two processes is critically hampered because the time between Milestones in the DSARC process is increasing.

This increased timing between milestones sometimes causes programs to miss the yearly POM "window," further causing unnecessary delay in the program. This additional time reduces the "timeliness" of the existing documentation interfaces in that once the decisions of these documents are implemented into the other process the decisions supporting them may have to change.

B. RECOMMENDATIONS

1. Determine a way to insure coordinating and integration of the processes.

The fact that integration of the two processes is needed was highlighted in Chapter VI and supported by three recent studies (Task Force, AAG, DRMS).

Because DSARC decisions are not funding decisions, it is recommended that a review be made and corrective action taken to insure better coordination and integration of OSD

management control systems (PPBS, DCP, MENS, etc.) that interact with the DSARC process and related Service processes. Decisions recommended as a result of any OSD management process should be flagged and addressed to SECDEF, the DSARC principals and the head of the affected DOD component prior to final approval by the SECDEF.

There are two approaches that may be useful in strengthening the interface between the DSARC process and the PPBS process. First, as soon as a weapon system enters the DSARC process (that is, approval of the MENS at Milestone 0), it should be documented in the PPBS process as a claimant against the "planning wedge" of uncommitted resources potentially available to the defense budget in future years. How this planning wedge would relate to the FYDP is a matter of critical importance to the PPBS process. This is an area for future study or a follow-on thesis.

Secondly, would be to further strengthen both DSARC and the PPBS procedurally. In order to be considered in the PPBS, the Secretary may require that system acquisitions be in compliance with the process requirements of A-109. In fact, this notion has been tested at the insistence of OMB during the fiscal 1980 budget review, but its effects are not clear. It also may be possible to establish a reverse interface in which acquisitions facing DSARC decisions could not be considered unless certain procedural requirements had been met within PPBS.

The DRB, if properly administered, could help implement the above two approaches. The Board would bridge jurisdictional differences in OSD and offer greater continuity and institutional memory to the PPBS process. However, the DRB as presently established is counterproductive because of political conflicts within OSD. This is because ASD(PA&E) or ASD(C) presently preside over the DRB which is within the PPBS process only; hence there is no continuity of decisions within the PPBS and DSARC processes when ASD(PA&E) and ASD(C) are not in agreement with DSARC decisions [41:20].

2. <u>There should be early involvement of principals in the DSARC and PPBS processes</u>.

Chapter VI discussed how advocates aid the consistency of the decisions made in both processes. It is therefore recommended that a concentrated effort be made by the program manager and program sponsor to gain as much support as possible early in program initiation. A key means to accomplish this occurs after Milestone 0 of the DSARC process. Once the program manager has developed the acquisition strategy for his program, he should then brief the acquisition strategy to the individual DSARC principals. This would give the principals an indication early in the program what the weapon system is about as well as an indication of how it is going to be accomplished without the details of a DSARC review. Another key means of involving the principals and staff of each process is through informal liaison with the particular offices.

3. Insure decisions are reflected from one process to the other as soon as possible.

Because the DSARC and PPBS processes are parallel but independent of each other, not all decisions are transmitted from one process to the other readily. As noted earlier, this causes delays, slippage and the reversal of decisions. There has to be coordination of the DSARC decisions (especially II and III) with programming and budgeting decisions in the PPBS process.

This could be accomplished by coordinating some, but not all DSARC II and III decisions with the schedule of the PPBS programming and budgeting cycle. Thus the SECDEF would schedule decisions for major systems so that a decision is registered in both processes at once. It might be possible, for example, to compress the PPBS program and budget reviews into single major issue review periods, in which DSARC II and III decisions were also scheduled. How this might be done is a matter of detailed architecture of the PPBS, but the principle would reduce unnecessary redundancy in DOD decision-making and strengthen the enforcement of both the DSARC and PPBS decisions.

4. Conduct a review of the "old way" of thinking.

It has been documented that interface between the two processes is necessary for a number of reasons. Still there seems to be a lack of adequate interface because the two systems operate independently. It is recommended that in reviewing the processes for improved interface, further consideration be

given to the possible consolidation of the processes to permit concurrent review of a program. This would enable decision-makers to better understand the program and allocate resources for funding more efficiently. In order to accomplish this, a "window" would have to be established where each existing and potential program would be presented for particular problems, funding profiles, schedules, etc. for review and approval prior to the POM "window." This would also occur after the consolidated guidance was forwarded to the Service Secretaries insuring the programs submitted for approval were in fact still within the guidelines of the consolidated guidance.

APPENDIX A

GLOSSARY

AGENCY - A department, commission, board or independent office in the executive branch of the government.

APPORTIONMENT - A cut of an appropriation given to a department by the Office of Management and Budget. This cut may be all or only part of the dollars appropriated. An apportionment is an allocation at department level and represents the amount that can be committed or obligated, regardless of the amounts shown in the appropriation or financial plan.

APPROPRIATION - A fund authorization set up by an Act of Congress which permits a department or other governmental agency to obligate the U. S. Government to pay money for goods or services.

APPROVED PROGRAM - Resources (Forces, Manpower, Obligational Authority and Material) for individual program elements reflected in the FYDP, as modified by the Secretary of Defense decisions.

AUTHORIZATION ACT - An Act giving authority to buy certain things when the appropriations are made available by Congress.

BUDGET - A planned program for a fiscal period in terms of estimated costs, obligations and expenditures.

BUDGET CYCLE - The period of time necessary to formulate, review, present and secure approval of the Fiscal Program for a specific ensuing period of time.

DECISION COORDINATING PAPER (DCP) - A document prepared by the procuring activity and coordinated with key DOD officials providing a summary management document for the Secretary of Defense. DCP reflects the Secretary of Defense decisions on important development and engineering modification programs. The document serves as a source of primary information and rationale and for updating the FYDP.

FISCAL GUIDANCE - Annual guidance issued by the Secretary of Defense which provides the fiscal constraints that must be observed by the JCS, the Military Departments, and Defense Agencies, in the formulation of force structures and Five-Year Defense Program, and by the Secretary of Defense Staff in reviewing proposed programs.

FIVE-YEAR DEFENSE PROGRAM (FYDP) - The official program which summarizes the Secretary of Defense approved plans and programs for the Department of Defense. The FYDP is published at least annually. The FYDP is also represented by a computer data base which is updated regularly to reflect decisions.

PROGRAM ELEMENT - A description of a mission by the identification of the organizational entities and resources needed to perform the assigned mission. Resources consist of forces, manpower, material quantities and cost, as applicable. The program element is the basic building block of the FYDP.

ACAT - Acquisition Category--programs are divided into four Acquisition Categories (ACATs) to facilitate effective management and review. A specific level of decision authority and specific acquisition procedures and responsibilities are assigned for each category.

MISSION NEED - A required capability within an agency's overall purpose, including cost and schedule considerations.

PROGRAM - Means an organized set of activities directed toward a common purpose, objective, or goal undertaken or proposed by an agency in order to carry out responsibilities assigned to it.

MAJOR SYSTEM - Means that combination of elements that will function together to produce the capabilities required to fulfill a mission need. The elements may include, for example, hardware, equipment, software, construction, or other improvements or real property.

SYSTEM ACQUISITION PROCESS - Means the sequence of acquisition activities starting from the agency's reconciliation of its mission needs, with its capabilities, priorities and resources, and extenting through the introduction of a system into operational use of the otherwise successful achievement of program objectives.

LIFE CYCLE COST - Means the sum total of the direct, indirect, recurring, nonrecurring, and other related costs incurred, or estimated to be incurred, in the design, development, production, operation, maintenance and support of a major system over its anticipated useful life span.

APPENDIX B

LIST OF ABBREVIATIONS

1. A-109------- OMB Instruction on System Acquisition
2. AAG--------- Acquisition Advisory Group
3. AMARC------- Army Material Acquisition Review Committee
4. ASD--------- Assistant Secretary of Defense
5. CAIG-------- Cost Analysis Improvement Group
6. CG---------- Consolidated Guidance
7. DCP--------- Decision Coordinating Paper
8. DEP SEC DEF- Deputy Secretary of Defense
9. DOD--------- Department of Defense
10. DPS--------- Decision Package Set
11. DSARC------- Defense System Acquisition Review Council
12. FYDP-------- Five-Year Defense Plan
13. JCS--------- Joint Chiefs of Staff
14. JPAM-------- Joint Program Assessment Memorandum
15. JSPD-------- Joint Service Planning Document
16. MENS-------- Mission Element Needs Statement
17. NMARC------- Navy Marine Corps Acquisition Review Committee
18. OMB--------- Office, Management and Budget
19. OSD--------- Office of the Secretary of Defense
20. OT&E-------- Ooperational Test and Evaluation
21. PBD--------- Program Budget Decision
22. PDM--------- Program Decision Memorandum
23. POM--------- Program Objective Memorandum
24. PPBS-------- Planning, Programming, and Budgeting System
25. SECDEF------ Secretary of Defense

APPENDIX C

LIST OF INTERVIEWEES

1. Glasiter, C., Director of Program/Financial Control. Office of Assistant Secretary of Defense (Comptroller), interview granted 18 July 1979.

2. Hendricks, P., Program Manager for EA6B, Naval Air Systems Command, interview granted 17 August 1979.

3. Hessler, D., Director for Research and Development for the Comptroller, Office of Secretary of Defense, (Comptroller), interview granted 15 August 1979.

4. Hettinger, L., Program Sponsor for EA6B, NOPO5, interview granted 15 August 1979.

5. Hooker, J., Head of Financial Management Branch, Cruise Missile Program, interview granted 17 August 1979.

6. Margolis, M., Deputy Assistant Secretary of Defense for Resource Analysis, Office of Assistant Secretary of Defense (Program Analysis and Evaluation), interview granted 15 August 1979.

7. Moore, R., Deputy Under Secretary for Tactical Warfare Programs, Office of Deputy Director Research and Engineering, interview granted 16 August 1979.

8. Nash, R., Staff Assistant for Budgeting, Office of the Comptroller of the Navy, interview granted 10 July 1979.

9. Nelson, C., Assistant Director of Program/Financial Control, Office of Assistant Secretary of Defense (Comptroller), interview granted 15 July 1979.

10. Shanglers, T., Staff Assistant for Program Planning, Office of Assistant Secretary of the Navy, interview granted 17 August 1979.

11. Smith, J., Acting Deputy Director for Major Systems Acquisition Directorate, Office of the Under Secretary of Defense (Research and Engineering), interview granted 16 August 1979 and 24 September 1979.

12. Whelan, C., Deputy for Plans, Programs, and Policy Branch, Cruise Missile Program, interview granted 17 August 1979.

13. Winkel, R., Program Manager for LAMPS, Naval Air Systems Command, interview granted 17 August 1979.

14. Zdobysz, A., Assistant Branch Head of Electronic Warfare Systems, Naval Air Systems Command, interview granted 15 August 1979.

APPENDIX D

INTERVIEW QUESTIONS:

A. Directed to DOD Level interviewees:

1. What do you consider to be the key interface points between the DSARC and PPBS decision-making process?

2. What do you see as the critical timing features of the two and how do you think this might be improved?

3. After approval in the DSARC process, is the success of a program determined entirely on the political aspects or justification in ZBB (PPBS)? Who is the key in the POM process to uphold the DSARC decision?

4. What are some of the inconsistencies, and how does this affect the workers?

5. What is the major thrust of ZBB, management or decision maker?

6. To what extent does the program sponsor contribute to being the key to a program as you see it? (That is, how does he go about insuring SECDEF decisions are fully funded?)

7. What is it exactly the POM/DSARC review cycle is looking for?

8. At what stages of the Acquisition cycle is a program introduced into the POM cycle?

9. Do the mission sponsors and resource sponsors work that closely together in the CPAM process? (CNO Program Analysis Memorandum)

B. Directed to PM's:

1. Hurdles/problems encountered with the POM/DSARC process?
2. From PM position, how can this be improved? (Question #1)
3. What about a Zero-Base program idea?

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